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The differential effects of prison contact on parent-child relationship quality and child behavioral changes

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Abstract

The children of prisoners can suffer from behavioral issues, poor school performance, and a heightened risk of crime and delinquency across the life-course. Separation from one's family is part of what makes incarceration a punishment, but what can be done to ensure that this punishment has the least harmful effect on children? Using data from the Arizona Prison Visitation Project, the current study seeks to answer: 1) what type of prison contact (in-person, phone, or mail) is associated with greater changes in the quality of parent-child relationships?, 2) Is frequency of prison contact associated with changes in the quality of parent-child relationships?, and 3) Is a change in parent-child relationship quality associated with a change in child behavior? Examining results from the parent (N=127) and child (N=293) level, the study finds that in-person visitation is associated with increases in relationship quality. Mail contact and frequent phone contact were also found to be important for relationship quality. This study provides support for the ability that prison visitation, and contact more broadly, may have to increase parent-child relationship quality. Implications of this work include considering measures to subsidize contact costs, encourage contact, and involve children in in-prison programming.

Keywords: prisons; punishment; relationships

Citation

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Each night, 2.7 million children in the United States are unable to kiss their mom or dad goodnight because that parent is behind bars (The Pew Charitable Trusts, 2010). Although the parent has been convicted of a crime and must face the consequences of doing so, the children of prisoners face a punishment all their own. Termed the “orphans of justice” (Shaw, 1992) and the “hidden victims of imprisonment” (Cunningham & Baker, 2003), children of incarcerated parents are more likely to suffer from behavioral issues, poor school performance, and a heightened risk for crime and delinquency across the life-course (Murray & Farrington, 2005; Murray, Farrington, & Sekol, 2012; Myers, Smarsh, Amlund-Hagen, & Kennon, 1999). Separation from family is part of what makes incarceration a punishment for the convicted (Cochran & Mears, 2013), but what can be done to ensure that this punishment has the least harmful effect on their children?

Prison visitation presents an intriguing opportunity to lessen the potential harms of parental incarceration. Visitation provides an important context for parents behind bars to continue to interact and bond with their families (Beckmeyer & Arditti, 2014; Cochran & Mears, 2013; La Vigne, Naser, Brooks, & Castro, 2005). Visitation with children can decrease in-prison misconduct and infractions, improve the social bonds that facilitate successful reentry, and reduce recidivism post-release (Bales & Mears, 2008; Cochran, 2012; Jiang & Winfree, 2006; Visser, 2011). Less is known, however, about the effects that prison visitation may have on children specifically and the parent-child relationship in general. In particular, it is unclear whether different types and amounts of visitation can serve to improve parent-child relationship quality. Further, it is unclear whether a change in that parent-child relationship quality is associated with a change in the child’s behavior. This is a critical omission given that much of the assumed harmful effects of parental incarceration on child behavior are thought to work through a damaged or nonexistent relationship between parent and child (Makariev & Shaver, 2010; Murray & Murray, 2010; Myers, Smarsh, Amlund-

Hagen & Kennon, 1999; Poehlmann, 2005). Prison contact between children and parents could serve to lessen the separation effects created through incarceration.

The current study examines data from the Arizona Prison Visitation Project (APVP) to understand the impact visitation and contact has on parent-child relationships and the collateral consequences of parental incarceration on children. The APVP contains information from semi-structured interviews of 231 male and female incarcerated individuals who had been visited in the previous month. The current study focuses on individuals who are incarcerated who were parents to minor children (N=127, with N=293 minor children) and seeks to answer: what type of prison contact (in-person, phone, or mail) is associated with greater changes in the quality of parent-child relationships?, 2) Is frequency of prison contact associated with changes in the quality of parent-child relationships?, and 3) Is a change in parent-child relationship quality associated with a change in child behavior? More broadly, the current study provides an examination of whether prison contact, and particularly visitation, can serve to mitigate the potentially harmful effects of separating parents and children through incarceration.

Prison Contact and Parent-Child Relationships

Incarceration can significantly change the dynamics of the parent-child relationship. “Parenting from a distance” and parenting at home are two dynamically different styles of parenting (Boudin & Greco, 1993). The major challenges associated with parenting from a distance, as reported by parents, range from the inability to be there for their children on a daily basis to a lack of knowledge of what was going on in the children’s lives to time constraints placed on contact with children (Bailey, 2003). Bailey (2003) also states that parenting from a distance limits the parent’s ability to regulate child behavior and influence child rearing practices. These challenges follow the same lines for parents in prison, as highlighted by Arditti, Smock, and

Parkman (2005) in their qualitative study of fatherhood behind bars. The authors interviewed 51 incarcerated fathers about their experiences and discovered that the men in their study reported problems related to fatherhood and the father identity, involvement with children, difficulties related to visitation, and co-parenting from prison. Considering the content of communication in prison, Hairston (2002), in her qualitative study about how fathers parent from prison, found contact with children typically consisted of educational encouragement, reminding children to mind their caregiver, and reminding children that they are loved. While a large amount of the “parenting from a distance” literature has focused on divorce, it is possible that the effects seen from divorce may be exacerbated in incarceration, since the separation is more extreme and the reasons for separation can be more jarring in general (Murray, 2005). Overall, incarceration can have an impact on the ability for parents to effectively fulfill their parental roles, and the type and frequency of prison contact can potentially serve as an opportunity to overcome the effects of separation.

Existing research has suggested several ways in which prison contact can facilitate or improve parent-child relationships that are strained by incarceration and family separation. First, and most generally, parent-child relationships in prison are facilitated through various forms of prison contact, each with their own context of communication. Prison contact comes in three forms: (1) mail, (2) phone calls, and (3) in-person visitation. Previous research has found mail to be the most common form of contact in prison, with mail contact occurring multiple times a week, phone contact at least once a week, and visitation at least four times a year (Tuerk & Loper, 2006). Each type of contact provides a different context for prisoners and their families to communicate. For example, by utilizing mail, an individual who is incarcerated and their respondent can reflect on and edit their thoughts at their own pace and respond at times that are more conducive to their

daily schedule (Tuerk & Loper, 2006). However, sending mail is not always age appropriate, as younger children cannot read or write and therefore another parent or family member must fully facilitate the communication (Kampfner, 1995). Conversely, phone calls allow the individual who is incarcerated and their family to communicate without the time delay associated with letter writing. Phone calls are especially important for those individuals whose families live great distances from the prison, those whose families are financially unable to visit, and those who are illiterate (Iddings, 2006). Compared to phone or mail contact, in-person visitation can be costly and time-consuming—depending on distance required to travel to the institution and items that may be brought to the prison (Christian, 2005).

While the other forms of contact provide important contexts for communication between prisoners and their families, in-person prison visitation allows for communication that more closely resembles prior family interactions. Visitation provides individuals who are incarcerated with proximal contact with their friends and families and facilitates continued social ties to those on the outside (Beckmeyer & Arditti, 2014). Further, prison visitation serves three purposes other than contact between individuals who are incarcerated and the outside world (Christian, 2005). First, it provides families of individuals who are incarcerated an avenue for “watching the system” and making sure that staff are treating the individual who is incarcerated well (p.41). Second, visitation can allow an individual’s family to advocate for better medical or psychological treatment. Third, whether through the view of serving the sentence together or plain devotion to an individual who is incarcerated, the moral support provided by families through visitation helps to lessen some of the psychological damage incurred as a result of the prison experience (Christian, 2005). Visitation, as a context of interaction between individuals, can prove to be beneficial for families and individuals who are incarcerated, outside of simply being a way to communicate.

The context of communication associated with in-person visitation stands in light of the fact that visitation rooms are not designed to facilitate normal family interactions. More specifically, visitation rooms can be chaotic, lack privacy, and are controlling and restrictive in nature (Arditti, 2003; Hairston, 2008). Visitation policies can restrict physical contact between families, set time limits, and are not sensitive to the behavior of children (Arditti, 2012). Visitation staff can be unhelpful and rude (Arditti, 2003). Visits can also be exhausting and time-consuming, especially for those who must travel great lengths to visit individuals who are incarcerated (Christian, 2005). Despite these challenges, the need for visitation can be summed up with the observation by a family member that the family “must make tradeoffs to stay connected to a prisoner” (Christian, 2005, p.40).

Second, taking into consideration the types of contact and the context they provide, it appears that certain types of contact may prove to be more beneficial for family relationships compared to other types of contact. Studies that examine the benefit of one type of contact over another for family relationships has resulted in somewhat mixed findings. Some researchers suggest that visitation has an empirically robust ability to improve relationships between parents and their children, although only a handful of studies examine visitation alongside other types of contact (see La Vigne, Naser, Brooks, & Castro, 2005; Poehlmann, 2005b). In a study focusing on the children of divorced parents, Arditti and Keith (1993) found that divorced fathers who visited their children more frequently reported better relationship quality. Examining parents in prison, La Vigne, Naser, Brooks, and Castro (2005) found that the benefits of visitation on attachment to family members, particularly children, was more so than any other type of contact. The researchers also suggest that in-person visitation has the greatest impact on post-prison relationships within families in general (La Vigne, Naser, Brooks, & Castro, 2005).

Alternatively, some researchers suggest that mail or phone contact has a greater impact on relationship quality than visitation. For example, in her study on incarcerated mother's relationships with their children, Poehlmann (2005b) found that phone calls, not visits, had the largest impact on improving mother-child relationships, as perceived by the mother. Also, Poehlmann and colleagues (2010) found that visits in prison may impede the ability for parents and children to improve their relationship due to negative feelings on the part of the child in response to the institutional setting.

Third, aside from the findings related to type of contact, it may be that the frequency of contact is more influential for the parent-child relationship. The literature tends to support the finding that frequent contact, in general, is beneficial for parent-child relationships—both for those parents who are divorced and those who are incarcerated. In a meta-analysis of 12 studies on parental factors and the adjustment of children post-divorce, Whiteside and Becker (2000) found that the frequency of contact had the greatest impact in improving parent-child relationships. Authors more generally have found that frequent contact, and programs which facilitate it, are beneficial for parents and their children, in terms of both parent-child relationships and child outcomes (Poehlmann, 2005a; Snyder, Carlo, & Coats Mullins, 2002; Trice & Brewer, 2004).

Overall, the above studies tend to support prison contact—and more frequent contact—as improving parent-child relationships among families who are separated for significant periods of time. At the same time, they raise a number of questions regarding the types of contact that are most beneficial toward improving parent-child relationships.

Parent-Child Relationships and Child Behavior

Researchers have shown that the children of incarcerated parents are more likely to exhibit antisocial behavior, problems with internalizing outcomes, issues with aggression and violence,

mental health issues, problems in school, and a higher rate of criminality in adolescence and adulthood (Burgess-Proctor, Huebener, & Durso, 2016; Farrington, 2000; Murray & Farrington, 2005; Murray & Farrington, 2008, Myers, Smarsh, Amlund-Hagen, & Kennon, 1999). While behavioral outcomes associated with incarceration are in no doubt important, of greatest importance for the current analysis is the how the presence of behavioral problems may change in response to or during the period of parental incarceration. The divorce literature provides insights into how behavior can change in response to abrupt changes in family dynamics. The period immediately following a separation is particularly stressful and children can have strong emotional responses including anger, anxiety, and shock (Hetherington, 1979; Hetherington, Cox, & Cox, 1982). Further, researchers have found a higher rate of behavioral problems in children of divorce up to two-years after the initial separation (Hetherington, Cox, & Cox, 1982). It is likely, though, that the child behavioral responses associated with incarceration will be more severe than with divorce, since incarceration of a parent is a more serious form of separation and can involve a higher level of trauma for children (Murray, 2005).

There are several reasons to believe that parental incarceration and changes in the parent-child relationship may influence child behavior. First, parental incarceration has been noted by previous researchers to be a form of ambiguous loss (Arditti, 2003). Ambiguous loss differs from normal loss in the sense that it is out of an individual's control and as the name implies, it involves a sense of ambiguity in the status of the person (Boss, 1999). Boss (1999) highlights that the cause of the loss, whether it be sudden and catastrophic or more common and predictable, may alter an individual's response to an ambiguous loss. For some families, then, an individual's incarceration may be common and predictable. But for others, an individual's incarceration is sudden and catastrophic. Children suffering from the ambiguous loss of a parent through incarceration have

been found to have higher rates of behavioral issues, including internalizing behaviors, externalizing behaviors, and PTSD (Bocknek, Sanderson, & Britner, 2009).

Second, the child-level outcomes associated with ambiguous loss are amplified by the cultural notion that incarceration is not an event which can be mourned within society. This blockage of normal grieving processes by society leads to disenfranchised grief. Incarceration is highly stigmatized in that the individual who is incarcerated is to blame for their incarceration and those who are related to them may feel a sense of social shame (Arditti, 2003). Disenfranchised grief can lead to psychological, behavioral, and emotional problems due to the individual's inability to grieve properly because the demonstration of grief itself is stigmatized (Arditti, 2005). These problems can include depression, anxiety, and anger, trouble concentrating, and a tendency to avoid social contact (Edelstein, Burge, & Waterman, 2001; Exline, Dorrity, & Wortman, 1996).

Third, incarceration of a parent has an impact on the development of a child's style of attachment, particularly when a child is very young at the time of incarceration. Beginning in infancy, children develop attachment styles from relationships and bonds with their caregivers, particularly from their mother (Ainsworth, 1979; Bowlby, 1973). These attachment styles can take one of four forms: secure, anxious-avoidant, anxious-resistant, or disorganized (Ainsworth, 1979; Bowlby, 1973; Main & Solomon, 1986). A secure attachment style results from responsiveness, availability, and sensitivity from the parent. An anxious-avoidant attachment style results from a child's uncertainty if their caregiver will be responsive, available, or sensitive to their needs. An anxious-resistant attachment style results from a child's knowledge that the parent will not be available, responsive, or sensitive to their needs (Bowlby, 1988). Lastly, attachment styles that do not fit into the above three categories are labeled as disorganized (Main & Solomon, 1986).

Researchers have demonstrated that more profound consequences result from attachment styles where a child and a parent are separated early in the child's life (particularly infancy) and for long periods of time (Poehlmann, 2005a). Separation, particularly in the form of incarceration, impacts attachment development and sustenance (Bowlby, 1973; Poehlmann, 2005a). In support of this, researchers have found that children of incarcerated mothers have a higher likelihood of reporting anxious or disorganized attachments to their parents (Poehlmann, 2005a). Overall, while ambiguous loss and disenfranchised grief are important frameworks for understanding why incarceration impacts child behavior, disruptions in the development of a child's attachment style connects incarceration to changes in parent-child relationships that can impact child behavior.

While theoretical expectations point us toward the ability for parental incarceration and changes in the parent-child relationship to influence child behavior, few studies have examined child behavioral issues in direct response to a parent's incarceration. While researchers have described important long-term behavioral consequences associated with parental incarceration, they often have failed to examine both behavioral changes at the point of incarceration and behavioral change over the course of incarceration. Those researchers who have examined this phenomenon find that the presence of childhood behavioral problems increases during the course of a parent's incarceration (Shlafer & Poehlmann, 2010). Therefore, researchers who examine child outcomes post-release are likely missing important behavioral changes that take place during a parent's incarceration that can be directly linked to the separation of parents and children through incarceration. Thus, it is important to understand behavioral change as a fluid process that takes place in the context of incarceration that cannot be measured accurately at a single time point.

While parental incarceration can lead to changes in child behavior, research also demonstrates that changes in the parent-child relationship can lead to changes in child behavior.

Much of what we know about this relationship comes from the literature on divorce. In a meta-analysis of 24 studies related to the risk and protective factors in children's adjustment to divorce, Leon (2003) reported that parent-child relationship quality plays an important role in a child's adjustment to divorce. Further, children who had a poor relationship with one or more parents had worse behavioral outcomes than children with intact households (Peterson & Zill, 1986). In a study on child responses to parental incarceration, Murray (2005) notes the parent-child relationship as an important moderating factor for child outcomes. Another part of Shlafer & Poehlmann's (2010) study examined the relationship between caregiver-child relationship perceptions and child behavioral issues in families experiencing incarceration. They found that caregivers who felt more negatively about their relationship with their child were more likely to report that their child exhibited problematic externalizing behaviors six months later, such as aggression, stealing, destruction of property, and running away from home. It is important, then, to understand how the parent's perception of a relationship can either influence problematic behavior or influence the context in which one understands a child's behavior.

While research has typically described parental incarceration, and separation more generally, as negative, this may not always be the case. In their study about the consequences associated with parental incarceration, Turanovic, Rodriguez, & Pratt (2012) highlighted the ability for parents to contribute to their children's well-being, despite living in separate households. Parenting from a distance, as discussed above, is not always associated with negative outcomes for children. This appears to be particularly true for families which were full of conflict, disruption, or discontinuity prior to an incarceration period (Turanovic, Rodriguez, & Pratt, 2012). It is also possible that incarceration may provide a period of clarity, sobriety, and focus for some parents, which positively impact child outcomes.

Taken altogether, researchers have begun to understand the link between prison contact, the parent-child relationship, and child behavior. It appears that contact in prison can have a positive impact on the parent-child relationship. Particularly, visitation appears to have the greatest ability to improve the parent-child relationship for families impacted by incarceration. More positive parent-child relationships appear to lead to lower rates of child behavioral issues, particularly in families of those incarcerated. Lastly, more recent studies which examine the direct link between prison contact and child behavior have found that children are less likely to have negative outcomes when they stay in contact with their imprisoned parent. In-person visitation also appears to have a positive influence on child outcomes, leading to better adjustment and more positive behavior. All in all, it appears that visitation may provide a greater benefit for both the parent-child relationship and child behavioral outcomes than other forms of contact.

Current Focus

While we know that incarceration can have an impact on individuals who are incarcerated, we also know that incarceration can impact the children of those who are incarcerated—often in a harmful manner. Researchers have demonstrated that the children of incarcerated parents exhibit negative outcomes, including behavioral issues, educational problems, issues in their overall well-being, and a higher risk for crime and delinquency (Murray & Farrington, 2005; Murray & Farrington, 2008; Murray, Farrington, & Sekol, 2012; Myers, Smarsh, Amlund-Hagen, & Kennon, 1999). While research on incarceration tends to focus on child outcomes long after incarceration has concluded, less is known about the proximal reactions children can have to incarceration and the ability that prison contact has to lessen these reactions. Previous research has begun to demonstrate the ability prison contact has to influence parent-child relationships and long-term child outcomes associated with parental incarceration. At the same time, current research falls

short in connecting different types of prison contact to changes in the parent-child relationship that may, in turn, influence child behavior during the period of incarceration.

Research Questions & Hypotheses

The current study seeks to bridge the gap in current research by asking three research questions, each with a related hypothesis.

First, what type of prison contact (in-person, phone, or mail) is associated with greater changes in the quality of parent-child relationships? Researchers have been mixed on the benefits of one type of contact over another (La Vigne, Naser, Brooks, & Castro, 2005; Poehlmann, 2005b; Poehlmann et al., 2010). Despite the disagreement in the research, researchers have demonstrated how important visitation can be for incarcerated parents and their families (Beckmeyer & Arditti, 2014; Christian, 2005). Thus, it is hypothesized that there will be differences in the change in parent-child relationship quality across types of contact, with visitation demonstrating the largest positive change in parent-child relationship quality compared to mail and phone contact (H_1).

Second, is the frequency of prison contact associated with changes in the quality of parent-child relationships? Researchers have found that frequent contact is beneficial for parent-child relationships in general (Poehlmann, 2005a; Snyder, Carlo, & Coats Mullins, 2002; Trice & Brewer, 2004). Similarly, it is hypothesized that frequent contact will increase the likelihood that parent-child relationship quality will change in a positive direction (H_2). It is not known for which types of contact frequency will be most important for, given that few studies examine different types of contact at once.

Third, is a change in parent-child relationship quality associated with a change in child behavior? Researchers have suggested that children who have better relationships with their parent, whether during divorce or incarceration, adjust better and have fewer behavioral problems

compared to children without positive relationships with their parent (Leon, 2003; Murray, 2005). Thus, it is hypothesized that a change in parent-child relationship quality will be associated with a change in the likelihood of a child having behavior problems (H₃).

Method

Arizona Prison Visitation Project (APVP) Sampling and Methods

The current study used data from the Arizona Prison Visitation Project (APVP). APVP was a two-phase study that collected information on individuals who are incarcerated from administrative records of the Arizona prison population between 2010-2013 and semi-structured interviews with 231 individuals who are incarcerated conducted in 2014 (Tasca, Wright, Turanovic, White, & Rodriguez, 2016). The study was conducted with the goal to evaluate the impact visitation has on recidivism, misconduct, and self-harm and to understand visitation experiences more thoroughly (Tasca, Wright, Turanovic, White, & Rodriguez, 2016).

To reach their sample of incarcerated individuals, researchers entered either the Arizona Department of Corrections (ADC) Florence State Prison Complex (men) or Perryville Prison Complex (women). Each day, the researchers would randomly select incarcerated individuals from the visitation log who had received at least one visit in the previous month. The ADC staff had no influence in selecting prisoners and did not inform prisoners of the project while escorting them to the interview location. There were also no incentives offered to participate in interviews. A total of 277 incarcerated individuals were approached to participate in the project. Of those, 15 were ineligible due to working off-yard or in the medical unit and 12 men and 19 women declined to participate (Tasca, Wright, Turanovic, White, & Rodriguez, 2016). This resulted in a cooperation rate of 88% (231/262).

From the full sample of 231 incarcerated individuals, only incarcerated individuals who were parents of minor children are of interest for the current study. Twenty-six percent (n=61) of the incarcerated individuals in the full sample reported having no children and 17.3% (n=40) reported having no children under the age of 18. This resulted in 43.7% (n=101) of the cases in the full sample being excluded. Further, three individuals were missing data for either the children or minor children variable and were excluded from the sample of the interest. The effective sample size is 127 incarcerated parents of minor children (n=72 mothers, n=55 fathers).

An important feature of the data is that incarcerated individuals could provide information on multiple children. The interview instrument asked questions about up to five of an incarcerated individual's youngest children. As such, the data were reshaped to examine children nested within parents. Discussed in more detail in the plan of analysis section, this process involved the "reshape" command in Stata, which gives each grouping (parent) an ID then allows for the identification of variables within that grouping that correspond to entities nested at a lower level. One child had to be dropped from our sample due to passing away prior to the parent's current incarceration. A total of 293 children nested within 127 incarcerated parents constitute the data analyzed in this study.

Measures

The descriptive statistics for the sample of interest are reported in Table One.

Independent variables. There are 3 groups of independent variables that will be used in the current analysis: type of contact, frequency of contact, and parent-child relationship quality change.

Type of contact. The first group of independent variables measures whether the child ever contacted their parent using each of the three types of contact (visitation, mail, or phone). These

are all dichotomous variables, where 1=the child contacted the parent at least once during the current incarceration using that method of communication. Fifty-six percent of the children were reported to have visited, 67% were reported to have called, and 76% were reported to have utilized mail. Forty-two percent of children used three types of contact, 26% used two types, 18% used one type, and 14% did not have any contact with their incarcerated parent.

Frequency of contact. The second group of variables measure frequent contact separately for each type of contact (visitation, mail, and phone). With respect to how often the children in this sample contacted their parent in prison, 76% (n=145) of those children who contacted through phone did so weekly, 45% (n=98) of those who contacted through mail did so weekly, while only 31% (n=49) of those who contacted through visitation did so weekly. Further, of those children who had contact with their parent through visitation, 77% (n=125) of them visited their parent weekly or monthly.

Change in parent-child relationship quality. The third group of independent variables is the change in parent-child relationship quality. The APVP survey instrument measured parent-child relationship quality by asking, “how would you describe your relationship with your child now” and “how would you describe your relationship with your child in the year prior to your incarceration” This is an ordinal-level variable and the responses are coded as: 1=not close at all, 2=somewhat close, and 3=extremely close. In the current analysis, the change in parent-child relationship quality is measured as the difference between the two relationship quality variables: current parent-child relationship quality and past parent-child relationship quality. Sixty-three percent (n=163) of the children were reported to have no change in relationship quality, 8% (n=24) were reported to have a positive change, and 25% (n=72) were reported to have a negative change in parent-child relationship. Among those who reported no change in relationship quality, 81%

(n=131) reported a high level of relationship quality, 7% (n=12) reported a moderate level of relationship quality, and 12% (n=19) reported a low level of relationship quality. Thirty-four children were missing data for one or both of the relationship change variables.

Dependent variables. Two dependent variables are used for the current analysis: the change in parent-child relationship quality and the presence of child behavioral problems before and/or during incarceration. The change in relationship quality variable is discussed above. The measure for child behavioral issues was recorded by asking the parent “which of these issues has your child encountered?” The choices were: problems in school, seen/heard violence in the home, exposed to drug/alcohol abuse in the home, and victim of violence/abuse. Due to the rarity of a respondent reporting that the child had experienced the other three issues, it was decided that the measure of problems in school would represent the child behavior measure.¹

Problems in school is a nominal-level variable, where 0=no problems, 1=problems before incarceration, 2=problems during incarceration, and 3=problems at both time points (before and during). Sixty-five percent of children (n=183) were reported to have no problems in school, 6% (n=18) were reported to have school problems prior to incarceration but not during, 9% (n=25) were reported to have school problems during incarceration but not before, and 7% (n=20) were reported to have school problems both before and during incarceration. Thirty-seven children were missing data for this variable. Seventy percent (n=26) of those who were missing data for this

¹ Problems in school is likely a more objective report of child behavioral problems since it involves a letter or communication home, rather than the other parent or caregiver communicating this information directly or indirectly prior to prison. Further, unlike the other three variables, problems in school encompasses both internalizing and externalizing behaviors (Liu, 2004) Including both types of behavior is an important indication of overall behavioral problems, rather than indicators of victimization (victim of violence/abuse) or behaviors that may be attributed to the incarcerated parent (seen/heard violence in the home, exposure to drug/alcohol abuse in the home).

variable were reported to be five years of age or younger. It is possible that due to the length of the current prison stay, the child was not old enough to attend school prior to the parent's incarceration, leading to a missing value for this variable.

Control variables. Consistent with prior research, a variety of parent-level, child-level, and family level variables served as controls, consistent with prior research (Geller, Cooper, Garfinkel, Schwartz-Soicher, & Mincy, 2012). Parent-level controls included: parent gender (0=male, 1=female), parent age, parent race was broken up into four dichotomous variables (White (reference category), Hispanic, African American, and other), current parental marital status (1=married, 0=not married), pre-incarceration parental employment (1=any type of employment, 0=not employed), parental education (1=at least high school diploma or GED, 0=less than high school diploma), mental illness (ever) (1=yes and 0=no), criminal history (count of prison terms), drug use in the month prior to the current period of incarceration (1=yes, 0=no), and time left in sentence (reported in years). Considering the last variable, time left in sentence, fifty-three percent of the sample had between zero and one years left in their sentence and 6% of the sample had eight or more years left to serve. Those who were serving life sentences were coded (1=yes, 0=no). Further, if an individual had an unknown number of years left to serve, this was coded separately as well (1=yes, n=no). Three child demographic variables were included in the present analysis: child age, and child gender (0=male, 1=female). Lastly, family-level controls included: status of the current caregiver of the child (1=other parent or grandparent, 0=another relation) and living with child prior to incarceration (1=yes, 0=no).

Plan of Analysis

Due to the structure of the APVP interviews, there is the ability to look at relationships both between children and between individuals who are incarcerated (between-families). The

ability to control for parent (and family-level) effects reduces the amount of omitted variable bias that the analyses may contain. For this study, these variables were the type and frequency of contact variables, current caregiver of the child, and whether the individual who is incarcerated was living with the child prior to their incarceration. To create the between-families measure, a family-level mean of these measures across children in each family was created.

The current project utilized two separate types of analyses. To examine the first and second research questions, a mixed effects multilevel regression model (xtmixed) was used (StataCorp, 2015). Four separate models were estimated to examine both the influence of the choice of a type of contact has on changes in parent-child relationship quality and the influence that frequency of contact has on changes in parent-child relationship quality. The first model measures the impact of between- and within-parent measures of the presence of contact. A significant between-parent effect would suggest that parents whose children choose one kind of contact over another are more likely to have better relationships with their children than individuals whose children did not choose that type of contact. A significant child-level effect would suggest that differences between children in the sample in the choice of prison contact may influence a change in the parent-child relationship. If significant findings are found for the frequency variables, it would mean that either children who have more frequent contact with their parent or parents who have more frequent contact with their children have differing levels of parent-child relationship quality than those who did not have frequent contact.

To answer the third question, a series of multi-level mixed effects logistic regressions (meqrlogit) were estimated. A separate regression was run for each value of the child behavioral change variable. One set of regressions utilized just “no behavioral problems” as the comparison group, while the second set utilized all the other behavioral groups as the comparison. If significant

findings are found in these models, it would suggest that the change in parent-child relationship is correlated with changes in child behavior.

Due to the large amount of missing data in the current analysis (13% $n=37$), multiple imputation was used to allow for the inclusion of missing cases. Ten multiple imputations were used, as described by Allison (2001). Variables which were missing data were: the presence of contact variables and the living with child(ren) prior to incarceration variable. There were two sets of variables that were missing that were not imputed on: the frequency of contact variables and the problems in school variable. The frequency of contact variables were meant to be only among those who had that type of contact in some frequency, so those who were reported to have never contacted through that method were coded as missing. Second, both relationship quality change and problems in school are the main dependent variables of the analysis, thus not always appropriate to impute on (Allison, 2001). Because relationship quality change is utilized as the independent variable in the third set of analyses, it was imputed on after the first two sets of analyses on contact were completed. Further, it is not of interest whether children who were too young to be in school prior to the parent's incarceration had changes in the problems in school at between the two time-points.

Results

Q1: Presence of Type of Contact & Parent-Child Relationship Quality Change

The truncated results for analysis one are included in Table Two. The results from the full model are included in Table Six at the end of the manuscript. Standardized coefficients are reported. Standard deviations are included at the bottom of the table for all of the standardized coefficients.

The analysis found a significant association for the both the between-parent and between-child measures for presence of visitation and changes in parent-child relationship quality.² Specifically, the coefficient shows that a one standard deviation increase in the average likelihood of visitation across a parent's children increased the level of reported parent-child relationship quality by 0.195 ($p < 0.033$). Further, a one standard deviation increase in a child's likelihood of visiting their parent in prison increased the level of reported parent-child relationship quality by 0.201 ($p < 0.002$). Further, the analysis revealed that a one standard deviation increase in a parent's likelihood of mail contact across their children increased relationship quality by 0.181 ($p < 0.020$). Also, the F-test suggests that the model is statistically different from a model with no variables ($p < 0.0000$). The significance of control variables are discussed below.

Q2: Frequency of Types of Contact & Parent-Child Relationship Quality Change

The truncated results for analysis two are included in Table Three. Estimates for the full models are available upon request. Both unstandardized and standardized coefficients are reported. Standard deviations are included at the bottom of the table for all of the standardized coefficients. The models showed that only differences between children in the frequency that they contact their incarcerated parent by phone significantly increased parent-child relationship quality (standardized: 0.116, $p < 0.046$). The F-tests show that both the frequent calls and mail regressions

² While the measure of relationship quality can be best described as a measure of closeness, previous research suggests that closeness is an important part of parent-child relationship quality (Paulson, Hill, & Holmbeck, 1991). Considering other factors which are associated with parent-child relationship quality, such as parenting style or discipline, closeness is a neutral construct that is easy for a parent to answer. It does not need either an outside individual to perceive the interactions between the parent and child or for the parent to reflect upon possibly negative aspects of their parenting style. As such, given the information available for the current analysis, it was an appropriate measure of parent-perceived parent-child relationship quality.

were statistically significantly different than zero (calls: $p < 0.0000$; mail: $p < 0.0001$). The significance of control variables are discussed below.

Aside from the significance of the frequency of contact variables, specific measures of the presence of contact (visitation, mail, and phone) remained a significant predictor of relationship quality changes in a handful of the frequent contact models. The between-child measure of visitation remained significant in the frequent mail regression only (standardized: 0.209, $p < 0.000$). The between-parent measure of visitation was significant in the frequent calls regression (standardized: 0.294, $p < 0.006$). Lastly, the between-children measure of mail was significant in the frequent calls model (standardized: 0.262, $p < 0.004$). All of these measures were in the positive direction, suggesting again that the presence of specific types of contact increased parent-child relationship quality. No other significant coefficients related to the presence of contact were found.

Q3: Parent-Child Relationship Quality Changes and Changes in Child Behavior

The truncated results for analysis three are reported in Table Four. The truncated result for analysis four are reported in Table Five. Full tables are available by request. In analysis three, each level of the dependent variable (behavior problems before, behavioral problems during, behavioral problems before and during) is compared to those who had no behavioral problems. In analyses four, each level of the dependent variable (no behavioral problems behavioral problems before, behavioral problems during, behavioral problems before and during) is compared to all other levels of the dependent variable. Thus, analysis three answers the question “do changes in relationship quality predict that children will belong to the group with behavioral problems during incarceration (for example), compared to children with no behavioral problems?” Analysis four answers the questions “do changes in relationship quality predict that children will belong to the group with

behavioral problems during incarceration (for example), compared to all other children in the sample?”

Neither analysis three nor analysis four produced any statistically significant relationships between changes in relationship quality and changes in the presence of child behavioral problems. It is important to note that positive changes in parent-child relationship quality among parents were associated with a substantively significant decrease in the likelihood their child(ren) would belong to the group with behavioral problems during incarceration, compared to those with no behavior problems (-2.189, $p < 0.091$). This finding did not reach significance at the $p < 0.05$ level.

Significance of Control Variables Across Models

There were control variables that were statistically significant across the different models. First, mothers who were incarcerated reported having increases in parent-child relationship quality in both the type of contact model (0.408, $p < 0.002$) and frequent calls model (0.382, $p < 0.008$). Second, compared to those who were white, African American parents had larger relationship quality decreases in the frequent visitation model (-0.820, $p < 0.000$). Third, individuals with higher levels of education (high school diploma or above) reported having a decrease in relationship quality between parents and their children across all contact models (type of contact: -0.264, $p < 0.039$; frequent visits: -0.420, $p < 0.007$; frequent mail: -0.360, $p < 0.016$; frequent calls: -0.415, $p < 0.007$). Fourth, children who lived with their parents prior to incarceration were reported to have decreases in parent child relationship quality across multiple models (type of contact: -0.345, $p < 0.001$; frequent mail: -0.243, $p < 0.031$). Fifth, individuals with a greater number of prior prison terms reported having increases in reported parent-child relationship quality across the contact models (types of contact: 0.220, $p < 0.001$; frequent visits: 0.208, $p < 0.010$; frequent mail: 0.290, $p < 0.000$; frequent calls: 0.246, $p < 0.001$).

Discussion

Incarceration involves sudden and prolonged separation, which can be traumatic times for the children and families of those incarcerated. Unfortunately, this separation cannot be avoided because it is central to what makes incarceration a punishment (Cochran & Mears, 2013). The current study set out to bridge the gap in current research regarding ways in which the collateral consequences of incarceration can be mitigated through policy and programming. By focusing on the prison contact context as a source for change, the current analysis examined whether different types and frequencies of contact, particularly visitation, were associated with changes in the parent-child relationship, and ultimately if the parent-child relationship could be a mechanism that can mitigate the negative behavioral responses that children have resulting from the incarceration of a parent. Based on the results, three conclusions can be reached.

First, in-person visitation is uniquely important for positive changes parent-child relationship quality, as is mail contact to a lesser extent. Specifically, the results from the above analysis shows that both parents whose children visit and children who visit their parents in prison are more likely to have higher levels of parent-child relationship quality, as reported by the incarcerated parent. These findings held true despite controlling for the presence of other types of contact and a variety of parent, child, and family variables. Further, parents whose children use mail contact also report increases in parent-child relationship quality. This supports previous research by suggesting that visitation has a robust ability to improve parent-child relationship quality (La Vigne, Naser, Brooks, & Castro, 2005) and that mail contact is also important for positive changes in parent-child relationship quality, while contradicting previous research regarding the importance of phone contact (Poehlmann, 2005b; Poehlmann, Dallaire, Loper, & Shear, 2010). These findings support the first hypothesis that there would be differences in the

magnitude of changes in parent-child relationship quality across types of contact, with visitation demonstrating the largest positive change in parent-child relationship quality compared to mail and phone contact. Further, mail contact also demonstrated a greater change in parent-child relationship quality than phone contact.

In response to these findings, correctional institutions should examine subsidizing or refunding contact/travel costs associated with visitation, particularly among families who may not currently utilize in-person visitation, either through their own means or through outside organizations. The larger body of visitation research suggests that visitation helps parents maintain social ties and sources of social support, which ultimately are important for reentry and reducing recidivism for individuals who are incarcerated post-release (La Vigne, Naser, Brooks, & Castro, 2005). Thus, programs which help families travel to the prison and visit with incarcerated parents can have multifaceted benefits for both children and their parents. Unfortunately, research suggests that overall, less than 20 percent of correctional facilities offer transportation to the correctional institutions and under 30 percent offer subsidized transportation to families (Hoffman, Byrd, & Kightlinger, 2010). A majority of the transportation assistance was provided by faith-based or community organizations, which is an important avenue for correctional institutions to continue to consider (Hoffman, Byrd, & Kightlinger, 2010).

Alternatively, correctional institutions should encourage individuals who are incarcerated to utilize in-person visitation through programming aimed at bringing children into the prison while facilitating contact and building positive relationships between a parent and their child. While reduced and refunded transportation costs are important for bringing those outside the prison into the prison, it is important to involve these families in programs specifically meant to increase relationship quality. Importantly, while not examined in the current study, programs which

facilitate face-to-face contact with children that is focused on quality conversations and relationship building has been found to increase relationship quality and decrease child behavioral problems among those involved (Snyder, Carlo, & Coats Mullins, 2002). Future research should examine these programs in comparison to programs which only facilitate contact to understand if and when these programs are the most beneficial for families.

Considering this study's finding related to mail contact and increases in parent-child relationship quality, it is important for institutions to take similar steps in reducing the cost and facilitating mail contact between an individual who is incarcerated and their family. This is especially true in instances where families may not use mail contact. It is also important to understand that the barriers to visitation and mail contact may differ greatly. For example, mail contact requires the ability to read, write, and convey one's words in writing (Kampfner, 1995; Tuerk & Loper, 2006). On the other hand, visitation requires the ability to drive, take time off work, and be successfully processed through the visitation clearance process (Christian, 2005).

Further, it is important to consider that there will be situations where contact between a parent and child is not possible. These include loss of visitation rights by the parent due to a prison infraction, loss of visitation rights due to divorce or custody issues, a child being placed in foster care or put up for adoption, the incarcerated parent being charged with a crime against the child, reluctance on the part of the caregiver, or simply being incarcerated in a different state than the family. In these situations, it may not be practical or ethical to attempt to encourage visitation/contact among these families. Overall, it is important for policy to take into consideration the fluidity of family ties and that the barriers to visitation are not homogeneous across individuals who are incarcerated.

Second, while previous research suggested that parent-child relationships benefit more from the frequency of contact rather than the presence of a given type of contact (Poehlmann, 2005a; Whiteside & Becker, 2000), the current analysis found this true for only children who report phone contact. This finding supports the second hypothesis that frequent contact would increase the likelihood that parent-child relationship quality would change in a positive direction. Given that each type of contact is examined separately, this hypothesis only held true for phone contact. The lack of findings in regard to the other frequent contact measures, this finding somewhat refutes previous research by failing to find a consistent association between the frequency of contact and changes in parent-child relationship quality (Arditti & Keith, 1993; La Vigne, Naser, Brooks, & Castro, 2005; Poehlmann, 2005b). Thus, it appears that among children who have contact with their parent via phone, those who do so on a weekly basis have better relationships with their parents, compared to those who contact their parents via phone less frequently. This is an important finding, considering that the mere presence of phone contact was not significant. It is known in research and practice that prison phone calls are expensive, often confounded by time limits and economic barriers (Iddings, 2006). Given that the current study found that children who communicated with their incarcerated parent on a weekly basis were reported to have better relationships with that parent, there should be a push to decrease the cost of prison phone calls in an attempt to remove some of the barriers to effective communication and relationship building among incarcerated parents and their children.

Third, while previous research has suggested that changes in parent-child relationship quality may have an influence on child behavior, the current study did not fully support this connection. Specifically, parents who have better relationships with their children were more likely to have children who belonged to the group with no behavior problems compared to the group

with behavioral problems during incarceration, although this finding was not statistically significant. Given the lack of statistical significance, this finding fails to support the third hypothesis that a change in parent-child relationship quality would be associated with a change in the likelihood of a child having behavior problems. While largely unexplored in correctional research, the findings of the third analysis on the link between parent-child relationship quality and child behavior have begun to extend previous research on divorce which suggests that children who have better relationships with their parents will have better adjustment post-divorce (Leon, 2003).

Limitations and Directions for Future Research

The current study, like all research, was limited in a few respects that can be attended to by future research. First, the level of measurement and operationalization of constructs in the original data source may have hindered the identification of relationships in the current analysis. Concerning the level of measurement, all variables in this study were perceived and reported, sometimes retrospectively, by the incarcerated parents. Researchers have suggested that reports, particularly of relationship quality, can differ significantly depending on the reporter (Aquilino, 1999; Mackintosh, Myers, & Kennon, 2006). Further, researchers have suggested that long recall periods (six months or more) can yield inconsistent results (Cantor & Lynch, 2000). Thus, future research should seek out reports from incarcerated parents, their children, and the caregivers of the children that utilize multiple survey points with a shorter recall period.

Additionally, the operationalization of constructs in the current analysis may have impacted the ability to find strong or meaningful links between key variables. First, the measure of parent-child relationship quality is best described as a measure of parent-perceived closeness of relationship, rather than quality. There were no measures of parenting style, communication

patterns, or child punishment. If reports from children or caregivers are used in future research, researchers should seek to measure relationship quality in a more holistic manner (see Gerard, 1994). Second, this dataset utilized an ordinal level variable for measuring the frequency of visitation with children. A more informative measure would be the yearly frequency of visitation by children, measured as a count variable. Ultimately, different ways of operationalizing constructs may lead to different or expanded conclusions compared to those presented here.

Second, there may be critical variables that were not measured during data collection. There is no measure for length of the current prison sentence or type of offense committed. Length of current sentence, rather than time left in sentence, would provide the ability to see how the length of the prison sentence may have impacted the retrospective reporting of relationship quality and behavioral issues (Cantor & Lynch, 2000). Also, it is possible that individuals who have been incarcerated for longer periods of time may have different magnitudes of changes in relationship quality than individuals who are incarcerated for shorter periods of time. As such, future research should take advantage of institutional level data (i.e., prisoner records) to build upon the findings presented in this study. It is possible that due to the measure of child behavioral changes (changes in the presence of problems in school), the current analysis may have missed important links between prison contact, parent-child relationship quality, and child behavioral changes. Research has suggested that while problems in school include both internalizing and externalizing behaviors, and often these coexist in children with serious behavioral problems (Liu, 2004), there is not research which suggests that the same relationship exists among children of incarcerated parents. It may be possible that the individual who is incarcerated is unaware of the child's behavioral problems due to their period of incarceration or their absence from the home. Future research should focus on the inclusion of more behavioral measures as well as reports of behavior from

multiple individuals. Along the same lines, it may be that like previous research, the current analysis was not able to tease out the influence of other confounding factors related to parent-child relationship quality changes and child behavioral outcomes. In conclusion, future research in this area should consider a larger number of variables, reports from a wider range of individuals, and examine families in a longitudinal manner to understand the broader context within which these constructs change.

Conclusion

The results suggest that in-person visitation is a salient context that is related to improved parent-child relationship quality. The results further suggest that the choice of contact while a parent is incarcerated is more important for increases in relationship quality than choosing to engage in frequent contact. These findings both support previous research and expand upon the current body of research which suggests that families do not always experience visitation and contact as a negative experience (Turanovic, Rodriguez, & Pratt, 2012). It appears that visitation and contact, rather, have important benefits for the parent-child relationship. The current study ultimately examines a pathway for future research to examine the complex relationship between parental incarceration, parent-child relationships, and child behavior.

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Table 1.					
<i>Descriptive Statistics</i>					
Variable		Mean	SD	Minimum	Maximum
Parent Demographics					
	Age	33.17	8.10	20	69
	Race				
	White	0.35			
	African American	0.12			
	Hispanic	0.39			
	Other	0.14			
	Gender (1=female)	0.57		0	1
	Marital status (1=married)	0.25		0	1
	Employed (1=yes)	0.61		0	1
	Socioeconomic status (1=on public assistance)	0.47		0	1
	Education (1=high school diploma)	0.75		0	1
	Mental illness (1=yes)	0.40		0	1
	Drug use (1=yes)	0.69		0	1
	Criminal history	1.65	0.89	1	6
	Years left in sentence	2.91	3.75	0	23
	Life sentence	0.02		0	1
	Unknown years left to serve	0.02		0	1
Child Demographics					
	Age of child	8.58	4.46	0	17
	Gender of child (1=female)	0.49		0	1
Family-Demographics					
	Living with parent (1=yes)	0.60		0	1
	Current caregiver (1=parent or grandparent)	0.77		0	1
Study Variables					
	Ever visited	0.55		0	1
	Ever called	0.65		0	1
	Ever mailed	0.75		0	1
	Frequently visited	0.43		0	1
	Frequently called	0.49		0	1
	Frequently mailed	0.33		0	1
	Relationship Quality Change	-0.24	0.73	-2	2
	Change in Behavior				
	No school issues	0.64			
	School issues prior to incarceration	0.06			
	School issue during incarceration	0.09			
	School issues during & before	0.08			
Notes: Parent descriptives: n=127. All other descriptives: n=283					

Table 2.

Results from Analysis One: Type of Contact on Change in Relationship Quality

DV: Relationship Quality		Between-Parents		Between-Children	
		β	$SE \beta$	β	$SE \beta$
Ever Visited (standardized) ^a		0.195*	0.091	0.201**	0.065
Ever Called (standardized) ^b		0.005	0.095	-0.077	0.071
Ever Mailed (standardized) ^c		0.181*	0.078	-0.034	0.060
Notes: n=293. Prob > F = 0.0000. Estimates for the full model appear in Table 6.					

Table 3.

Results from Analysis Two: Frequency of Contact on Change in Relationship Quality

DV: Relationship Quality Changes	Between-Parents			Between-Children		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Frequent Visits Model ^a						
Frequently Visited ^d	-0.045	0.280	-0.023	0.264	0.214	0.114
Ever Called ^h	-0.347	0.564	-0.137	0.077	0.540	0.028
Ever Mailed ⁱ	0.664	0.307	0.255	-0.292	0.249	-0.126
Frequent Calls Model ^b						
Frequently Called ^e	-0.335	0.231	-0.134	0.266*	0.157	0.116*
Ever Visited ^g	0.658**	0.234	0.294**	0.156	0.143	0.080
Ever Mailed ⁱ	-0.291	0.292	-0.090	0.673**	0.228	0.263**
Frequent Mail Model ^c						
Frequently Mailed ^f	-0.052	0.179	-0.024	0.171	0.129	0.085
Ever Visited ^g	0.364+	0.197	0.165+	0.420***	0.105	0.209***
Ever Called ^h	-0.303	0.215	-0.133	0.084	0.128	0.040

Notes: ^a n=162. Prob > F = 0.0559. ^b n=190. Prob > F = 0.0001. ^c n=220. Prob > F = 0.000.
^d Frequent Visit standard deviation: between-parents (0.414); between-children (0.421). ^e Frequent Calls Standard deviations: between-parents (0.356); between-children (0.426). ^f Frequent Mail Standard Deviations: between-parents (0.472); between-children (0.498). ^g Ever Visited Standard Deviations: between-parents (0.464); between-children (0.498). ^h Ever Called Standard Deviations: between-parents (0.439); between-children (0.476). ⁱ Ever Mailed Standard Deviations: between-parents (0.391); between-children (0.430).
+ = p<0.10 * = p<0.05 ** = p<0.01 *** = p<0.001

Table 4.				
<i>Results from Analysis Three: Children with Behavioral Problems Compared to Children with No Behavioral Problems</i>				
IV: Relationship Quality Change	Between-Parents		Between-Children	
	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>
Behavioral Problems Only Present Prior to Incarceration ^a	-0.446	1.80	-0.032	1.566
Behavioral Problems Only Present During Incarceration ^b	-2.189+	1.291	1.654	1.222
Behavioral Problems Present at Both Time Points ^c	1.444	1.226	-1.057	0.962
<i>Notes:</i> The base group for these regressions are children with no behavioral problems. ^a n=206. Prob > chi2 = 0.9997 ^b n=214. Prob > chi2 = 0.5210 ^c n=210. Prob > chi2 = 0.7247. + = p<0.10 * = p<0.05 ** = p<0.01 *** = p<0.001				

Table 5.

Results from Analysis Four: Children with Behavioral Problems Compared to All Other Groups

	Between-Parents		Between-Children	
DV: Relationship Quality Change	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>
Behavioral Problems Only Present Prior to Incarceration ^a	-0.451	0.778	0.105	1.405
Behavioral Problems Only Present During Incarceration ^b	-1.751	1.200	1.057	1.119
Behavioral Problems Present at Both Time Points ^c	1.641	1.259	-1.318	1.044
<i>Notes:</i> N=254. The base group for these regressions are all other behavioral problem groups. ^a Prob > chi2 = 0.9993. ^b Prob > chi2 = 0.5231. ^c Prob > chi2 = 0.8071. + = p<0.10 * = p<0.05 ** = p<0.01 *** = p<0.001				

Table 6.				
<i>Full Results from Analysis One: Type of Contact on Change in Relationship Quality</i>				
DV: Relationship Quality	Between-Parents		Between-Children	
	β	$SE \beta$	β	$SE \beta$
Ever visited (Standardized) ^a	0.195*	0.091	0.201**	0.065
Ever called (Standardized) ^b	0.005	0.095	-0.077	0.071
Ever mailed (Standardized) ^c	0.181	0.078	-0.034*	0.060
Caregiver (1=other parent or grandparent)	-0.138	0.206	0.005	0.138
Living together	-0.141	0.201	-0.345**	0.106
Parent age	-0.007	0.008		
Parent gender (1=female)	0.408**	0.131		
Race: African American	-0.194	0.202		
Race: Hispanic	0.270*	0.135		
Race: Other	-0.248	0.186		
Employed (Pre-Inc.)	-0.097	0.123		
Education (1=high school/GED or above)	-0.264*	0.128		
Marital status	-0.136	0.134		
Public assistance	-0.056	0.119		
Drug use (Pre-Incarceration)	-0.061	0.133		
Time left in sentence	-0.019	0.016		
Life sentence	-0.589	0.433		
Unknown sentence	0.449	0.567		
Prior prison terms	0.220**	0.069		
Age of child			0.005	0.008
Gender of child (1=female)			0.060	0.057
<i>Notes:</i> Number of cases = 297. Number of groups = 127. Prob > F = 0.0000. ^a Ever Visited Standard Deviations: between-parents (0.464); between-children (0.498). ^b Ever Called Standard Deviations: between-parents (0.439); between-children (0.476). ^c Ever Mailed Standard Deviations: between-parents (0.391); between-children (0.430). + = p<0.10 * = p<0.05 ** = p<0.01 *** = p<0.001				