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Children exposed to the arrest of a family member: Associations with mental health

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Abstract

The arrest of a parent or other family member can be detrimental to children's health. To study the impact of exposure to the arrest of a family member on children's mental health and how said association may change across developmental periods, we examined baseline data for children (birth through 11 years) entering family-based systems of care (SOC). Children exposed to the arrest of a family member had experienced significantly more 5.38 ($SD = 2.59$) different types of potentially traumatic events (PTE) than children not exposed to arrest 2.84 ($SD = 2.56$). Multiple regression model results showed that arrest exposure was significantly associated with greater behavioral and emotional challenges after controlling for children's age, gender, race/ethnicity, household income, caregiver's education, parenting factors, and other PTE exposure. Further

analyses revealed differences in internalizing and externalizing behaviors associated with arrest exposure across developmental levels. This study highlights some of the mental health challenges for children exposed to the arrest of a family member, while adding to our knowledge of how such an event affects children across different developmental periods. More trauma-informed, developmentally appropriate systems need to be in place at all levels to assist children and families experiencing arrest.

Keywords

young children; arrest; trauma; mental health; development

Introduction

Fifty-two percent of individuals incarcerated in state and 63% of individuals incarcerated in federal systems are parents of minor children. Further, 22% of the children of individuals in state and 16% of the children of individuals in federal systems are age 4 years or younger (Glaze & Maruschak, 2008). The arrest and imprisonment of parents disrupts parent-child relationships, alters the network of familial support, and places new burdens on schools, health and human service agencies, and judicial systems. It is estimated that two out of every five children aged 2 years and above whose parents have been arrested have clinically significant emotional and behavioral problems, about twice the rate of children in the general population; however, only about one in ten receive mental health services (Costello, 1996). To design more effective, developmentally appropriate programs there is a need for greater understanding of how exposure to arrest, beyond other potentially traumatic events (PTEs) children may experience, is associated with the emotional and behavioral health, and how said association may change across developmental periods.

Studies that have examined arrest exposure have found that children who are exposed to arrest are significantly more likely to have been the victims of and witnesses to a broader range of violent and nonviolent crimes in their homes (e.g., physical abuse, drug dealing; Kolko, Herschell, Costello, & Kolko, 2009; Phillips & Zhao, 2010), and have a greater likelihood of developing serious problems than do children whose parents do not have a history of arrest (Dannerbeck, 2005), those from the general population (Murray & Farrington, 2005a), or children from high-risk populations (i.e., child welfare) (Phillips, Burns, Wagner, & Barth, 2004). For example, data from the National Survey of Child and Adolescent Well-being demonstrate that at least 1 in 3 children ages 8 years and older who are subjected to maltreatment have also experienced the arrest of someone with whom they have lived (Dowd et al., 2003). This is noteworthy, as it has been found that multiple exposures to PTEs – either the same event type or across event types – are associated with higher levels of clinical problems (e.g., Kolko et al., 2010; Sameroff, 2000; Snyder et al., 2012) and long term physical and mental health outcomes (Felitti et al., 1998). In cases of arrest, the trauma children experience may be compounded as the cycle of arrest, imprisonment and release tends to be repeated (Wildeman, 2010). Thus, it is important to gain a better understanding of the context in which children may develop, including the types of PTEs to which they may have been exposed.

The impact of exposure to arrest may vary depending on a child's age and stage of cognitive development. For instance, Johnston (1992) found disorganized feelings and behaviors in early childhood and maladaptive behaviors in later childhood (i.e., antisocial behaviors such as lying and stealing, aggressive or isolated behavioral disorders, conduct disorders, and depression). While it is expected that there would be differences in child mental health outcomes after exposure to arrest depending on developmental age of the child, the limited research on experiencing arrest has assessed the impact on school-aged children and adolescents (e.g., Dallaire & Wilson, 2010; Kinner, 2007; Phillips & Zhao, 2010), leaving a gap in the literature regarding how younger children are affected.

Developmental periods: Attachment and loss in the face of arrest

Because young children have limited coping skills, they are at particular risk for negative outcomes associated with the arrest of a family member (Lieberman & Knorr, 2007). Infants and toddlers who witness violence in their homes or communities, which is often associated with arrest exposure and incarceration (Dallaire & Wilson, 2010; Dannerbeck, 2005; Phillips, Burns, Wagner, Kramer, & Robbins, 2002; Phillips, Erkanli, Keeler, Costello, & Angold, 2006), may display a number of internalizing symptoms, including emotional distress, and fear of being alone, numbing of responsiveness, and increased arousal and/or externalizing symptoms including excessive irritability, immature behavior, sleep disturbances, and regression in toileting and language (Osofsky, 1999).

Separation from a caregiver, as is what may occur when a parent is arrested, may negatively affect child development (Bowlby, 1977), particularly at younger ages when infants and toddlers rely upon secure relationships to caregivers to guide their actions and understanding. Disruptions in these relationships can interfere with all aspects of children's development, including the ability to acquire a healthy level of trust and autonomy (Osofsky, 1999). For children, the loss of a parent may be experienced as traumatic (Puddefoot & Foster, 2007); however, compared to children separated from parents for other reasons, children separated from parents because of parental incarceration are at greater risk for problem behaviors (Murray & Farrington, 2005a).

School-aged children also may be affected by the arrest of a family member. As with young children, school-age children exposed to trauma are more likely to show increases in sleep disturbances, and less likely to develop appropriate autonomy than children who are not exposed. Further, school-aged children have not acquired the coping mechanisms to adequately deal with trauma exposure (Osofsky, 1999), and thus may display more externalizing behaviors (e.g., acting out, being defiant) when faced with PTEs such as the arrest of a family member (Baker & Cunningham, 2005).

The Systems of Care Framework

Much of the empirical research conducted on the impact of arrest on children has focused primarily on children who are involved with the child welfare system, which constitutes only a fraction of all children who may have experienced the arrest of a family member (e.g., Phillips & Erkanli, 2008; Phillips & Zhao, 2010; Young & Smith, 2000). Thus there is limited knowledge about the impact of arrest on young children, and those being served by

other systems. The systems of care (SOC) framework for children's mental health was created to enhance the capacity of communities to address the complex social and emotional health needs of children, youth, and families. SOC is a network of services designed to provide comprehensive, coordinated, culturally relevant strengths-based services and supports across community-based agencies designed to meet the varied and changing mental health needs of the identified youth and his/her family (Cook & Kilmer, 2010; Pumariega & Winters, 2003; Stroul & Friedman, 1986). SOC's have almost exclusively served school-aged children and adolescents (Perry, Kaufmann, & Knitzer, 2007) as well as only peripherally assessing for adverse or potentially traumatic events (Community Mental Health Services, 2005); however, with increasing awareness of the negative effects trauma exposure has on the trajectories of children, a more detailed understanding of different types of trauma exposure is needed.

The Present Study

For the needs of children exposed to arrest to be fully addressed, it is essential to understand the relationship between arrest exposure and child outcomes. Due to the nature of arrest, one should consider that symptoms exhibited by children who are exposed to arrest could be the result of other traumatic experiences or an accumulation of traumas instead of, or in addition to, the arrest event itself (e.g., Kinner, 2007). A number of studies have shown that multiple exposures to PTEs are associated with greater symptomatology in children (e.g., Crusto et al., 2010; Kolko et al., 2010; Snyder et al., 2012) and that individual and family factors may contribute to a child's adjustment after exposure to trauma (e.g., Murray & Farrington, 2005b; Phillips et al., 2006). Therefore, any investigation of the association between exposure to arrest and poor child outcomes must take other risk factors that may be influencing children's behavior after exposure to arrest. The present study will examine the mental health status of children who have been exposed to arrest and explore how mental health status of children who have been exposed to arrest may differ by developmental periods when compared to children not exposed to arrest. Based on a review of the literature, the following hypotheses were developed: children exposed to the arrest of a family member will have elevated levels of internalizing and externalizing behaviors and will have been exposed to a number of different types of PTEs. Further, arrest exposure will be associated with more acting out, defiant behaviors in infants, toddlers and school-aged children.

Method

Participant Recruitment

The present cross-sectional study was taken from a study conducted simultaneously in two communities in the Northeast United States. Data were gathered as part of a larger evaluation of two early childhood mental health SOC. Families in the study were seeking mental health and developmental assessment, and/or intervention services for their children. Across the two SOC's 326 children were enrolled in the study. Data used in this study include children aged birth through 11 years of age from the overall SOC sample who had complete arrest history data ($N = 306$, 94% of original sample).

Measures

As part of the SOC intake process, participating caregivers were asked to complete a series of questionnaires. Child and caregiver descriptive information was obtained from the *Enrollment and Demographic Information Form* (EDIF) and the *Caregiver Information Questionnaire* (CIQ), forms developed for the Community Mental Health Services National Evaluation outcome study by ORC Macro (Community Mental Health Services, 2005).

Child Mental Health Outcomes—Internalizing and externalizing behaviors were assessed with the respective broadband t-scores from the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). The CBCL is a widely used 113-item measure of child emotional and behavioral problems. Caregivers rate each item as *not true*, *somewhat or sometimes true*, or *very true/often true* within the last six months. The instrument yields scores for internalizing and externalizing behavior, which were used in the current study. The CBCL has parent-report versions for children from 1 ½ to 5 years and 6 to 18 years of age, and the appropriate version was used for each child in this study. Statistical data on reliability and validity have been well established.

Child Trauma History—History of PTE was assessed using the Traumatic Events Screening Inventory-Parent Report Revised-Long Version (TESI-PRR; Ghosh-Ippen et al., 2002). The TESI-PRR is a caregiver report measure designed to screen for a wide range of PTEs for children including accidents, physical and sexual abuse, and domestic violence. Caregivers are asked to report “yes,” “no,” or “unsure” to each of the 23 types of PTEs a child could experience. There is also an open-ended question, for a total of 24 types of PTEs. The TESI-PRR was used to capture more in-depth information regarding children’s exposure to trauma, including child’s age at exposure and perpetrators’ relationship to the child. The TESI-PRR has been correlated with another measure of trauma exposure (Berent et al., 2008). Additionally, the very similar Traumatic Events Screening Inventory-Parent Report has reported test-retest reliability kappas ranging from 0.50 to 0.79 (Ford et al., 2000). Cronbach’s α for this sample was 0.70.

The TESI-PRR includes an item regarding children’s exposure to familial arrest. Specifically, it asks caregivers to respond to whether a child has ever known or seen that a family member was arrested, jailed, imprisoned, or taken away (like by police, soldiers, or other authorities). It also asks contextual follow-up questions, including the relationship of the person arrested to the child, the child’s age at first exposure, and whether the child was there to witness the arrest event. This item was used as an inclusion criterion for the present study. In addition, the number of different types of PTEs endorsed at intake was summed (discluding whether a child has been exposed to arrest) to create a trauma history summary score for the present analyses.

Covariates—We selected covariates based on previous literature and models relating trauma exposure to child mental health outcomes (Snyder et al., 2012). Child-related covariates were race/ethnicity (non-Hispanic black, non-Hispanic white, Hispanic, and other), age, and gender. Caregiver-reported covariates were educational attainment (no high school degree, high school degree/some college, and college degree or greater), and stress in

the parenting role using the Parenting Stress Index/Short Form (PSI; Abidin, 1995) Parent-Child Dysfunctional Interaction and Parental Distress subscales), and household-related covariate was annual household income (<\$20,000, \$20,000-\$34,999, \$35,000-\$49,999, and \$50,000).

Procedure

Upon enrollment into SOC services and supports, data from caregivers including demographic information, referral source, child's presenting problem(s), and family income was obtained. Semi-structured interviews were conducted by trained research interviewers using standardized instruments that assessed domains such as the child's behavioral health symptoms, trauma history, and mental health status. Interviews were completed in homes or in community-based locations of the family's choosing (e.g., libraries). Caregivers were compensated with a \$40 gift card for completing the interview.

Data were collected in English (93%) or Spanish (7%), depending on the respondent's preference and all measures were read aloud to address any literacy issues. Caregivers from all families enrolled in the systems of care were invited to participate in the evaluation and those who chose to participate gave informed consent. Declining participation in the evaluation had no impact on families' receipt of services. The Human Research Protection Program of the lead institution approved all study procedures and provided oversight in the protection of human research participants.

Data Analysis

Descriptive analyses were conducted for the entire sample, and for the subset of children who were exposed to a family member who was arrested, jailed, imprisoned, or taken away by police. Examination of skewness and kurtosis indicated no need for data transformations. Participant scores on the internalizing and externalizing subscales of the CBCL were compared with the clinical cutoff values. To examine the relationship between arrest exposure and children's behavioral health outcomes, we carried out separate multiple regression analyses for each of our two dependent variables of interest. Each multiple regression model included arrest exposure, the PTE history score, the child's age, gender and race/ethnicity, household income, caregivers' education, and parental functioning as the independent variables. Preliminary analyses revealed differences in behavioral functioning status across age categories among children exposed to the arrest of a caregiver. Therefore, we estimated similar separate regression models for each of the outcome variables across each age category (0 – 3 years, 4 – 6 years, and 7 – 11 years). Statistical procedures to account for missing data were not necessary due to completeness of the data. TESI-PRR data were complete for 298 (97%) of the overall SOC sample, and children in the smaller cohort exposed to arrest ($n = 65$) had complete data. Data analysis was performed using SPSS version 19.0 (SPSS Inc., 2010) and Stata version 12.0 (StataCorp, 2011).

Results

Description of the Sample

The overall SOC sample was predominantly male (74%) and white (61%), with a mean age of 5.74 years ($SD = 2.72$). The arrest-exposed cohort of 65 children was similar to the overall sample in terms of gender characteristics, were slightly older (average age of 6.39 years [$SD = 2.61$], $t[304] = 2.25$, $p = .03$) were from families with fewer monetary resources, and were more racially and ethnically diverse. The sociodemographic composition of the sample is shown in Table 1.

Trauma Exposure

Descriptive analyses provide a picture of exposure to and response to PTEs of young children entering a SOC (see Table 2). Based on caregiver report on the TESI-PRR, 191 (62%) of the overall sample had been exposed to multiple types (two or more) of PTEs, while 61 (94%) of the cohort of children exposed to arrest reported exposure to multiple types of PTEs beyond the arrest of a family member or someone close to the child (see Table 2).

Of the 65 children exposed to arrest of a family member, 20% had been the victim of physical assault, while 51% had witnessed the physical assault of someone else. Seventy-eight percent had at least one biological parent who had been arrested (18 mothers [28%] and 33 fathers [51%]). Other important people in children's lives arrested included siblings (3%), stepfathers (6%) and mother's partners (5%), grandparents (3%), and other relatives' partners (3%).

The average age of children at first arrest exposure was 3.90 ($SD = 2.71$) years, and the majority ($n = 51$, 78%) of children were aged 5 years or younger at first exposure. One in three children (33%) had experienced the arrest of their family member within the previous six months of entry into the SOC. In 82% of these recently exposed cases ($n = 18$), a mother (41%) or father (41%) had been arrested. The majority of children (80%) were present to witness the arrest.

Mental Health Outcomes

Upon enrollment into the SOC, 51% of the children exposed to arrest ($n = 33$) scored in the clinical range (≥ 64) on the internalizing subscale of the CBCL, with a mean score (SD) of 66.18 (9.51), 54% ($n = 35$) scored in the clinical range (≥ 64) on the externalizing subscale of the CBCL, with a mean score (SD) of 70.60 (10.45). These scores were similar to the scores for the children who were not exposed to arrest upon enrollment into the SOC ($\text{Mean}_{\text{Internalizing CBCL}} = 64.78$ [$SD = 9.31$] and $\text{Mean}_{\text{Externalizing CBCL}} = 70.13$ [$SD = 11.72$]).

The multiple regression model results for each of the two outcomes (internalizing and externalizing behavior scores) are displayed in Table 3. The regression model for internalizing behaviors showed that arrest exposure was significantly associated with greater problems ($\beta = .19$, $p < .01$, CI: 1.45, 6.97) after controlling for other trauma history, child's

age, gender and race-ethnicity, caregiver's education, parental functioning, and household income. The model for the externalizing behaviors ($\beta = .13, p < .05, CI: .49, 6.53$) demonstrated a similar effect of arrest exposure on children's mental health.

Separate regression model results controlling for the covariates listed above across the different age categories showed differences between groups (see Table 4). For the youngest cohort of children (birth through 3 years of age), history of arrest exposure was significantly associated with greater internalizing problems, but not externalizing problems. For children aged 4 through 6 years of age, both arrest exposure and other trauma history was associated with greater internalizing problems, while greater externalizing problems were associated with trauma history, but not with arrest exposure. For children aged 7 through 11 years, arrest exposure and other trauma exposure were significantly associated with greater externalizing behaviors, while other trauma exposure was marginally associated with greater internalizing behaviors.

Discussion

This study investigated the relationship between history of exposure to arrest on mental health outcomes and to explore how this relationship may vary by age. Consistent with previous research (e.g., Dallaire & Wilson, 2010; Kinner Alati, Najman & Williams, 2007), this study highlights some of the mental health challenges seen in children previously exposed to the arrest of a family member. It has been suggested that symptoms exhibited by children who are exposed to arrest could be the result of other traumatic experiences or an accumulation of traumas instead of, or in addition to, the arrest event itself (e.g., Kinner, 2007). However, after accounting for other trauma exposure and child-, parent-, and family characteristics, this study reveals that children with a history of exposure to arrest have greater impairments in internalizing and externalizing behaviors than those children without previous exposure to arrest. In a previous study of children of arrested parents involved with child welfare agencies, Phillips and colleagues (2004) reported rates of emotional and behavioral problems in ranging from 21% to 38%. Within our sample, clinical rates of emotional and behavioral problems ranged between 51% and 54%. This rate is more than twice the rate found among children in the general population (Costello, 1996).

In support of our hypothesis, the results of our research demonstrated that when children are exposed to the arrest of a parent or other family member, they are likely to exhibit greater behavioral challenges when compared to peers without this exposure. Further, similar to previous findings (Kolko et al., 2009; Phillips & Zhao, 2010), children in our study exposed to the arrest of a family member were more likely to also have been exposed to other types of PTEs compared to those not exposed to arrest. Per caregiver report, almost all of the children who had been exposed to an arrest had also been exposed to multiple types of PTEs beyond the arrest of a family member, including domestic violence, separation from a loved one, or death of someone close. This mirrors research stating that children who experience the arrest of a family member are more likely to experience other types of PTEs (Kolko et al., 2009; Phillips & Zhao, 2010, Snyder et al., 2012).

Our findings indicate that the influence of trauma exposure on children varies by age, and supports the assertion by Flavell and colleagues (2002) of the substantial impact of trauma on young children in particular. Young children are least likely to have acquired the developmental skills necessary to cope with trauma and will be most in need of intervention. Although our cohort was predominantly boys, exposure to arrest in the youngest cohort of children (those birth through 3 years of age) was associated with significant levels of internalizing symptoms, for example emotional distress and increased arousal. Besides the trauma of experiencing the arrest itself, young children in particular may also be affected by the sudden separation from a parent or primary caregiver. Given that children in this developmental stage depend on caregivers to help them make sense of experiences as well as regulate their emotions (Baker & Cunningham, 2005; Lundy & Grossman, 2005), it is not surprising that separation from a caregiver during this delicate stage of development due to arrest can have more serious effects on internalizing behaviors. Thus this suggests there is a need for programming focused on strengthening the parent-child bond to alleviate some of the disruptions that may occur in children's attachment relationships as a result of arrest.

Among children who were older, the behavioral manifestations associated with arrest exposure shifted from internalizing, to more externalizing behaviors, for example irritability and immature behavior. Parental arrest may cause older children's externalizing behaviors due to a number of reasons, including separation from a caregiver and the stigma attached to having a parent who was arrested. According to a study of children of incarcerated parents (Murray & Farrington, 2005b), children can experience stigma, bullying, and teasing because of their parent's imprisonment. Because children at this age continue to have difficulties regulating their emotions, and because they may not have access to a positive parent-child relationship because of separation, these events might cause school-aged children to express themselves through more antisocial and/or delinquent behaviors such as aggressiveness, running away, and truancy (Murray & Farrington, 2005b). Thus, programming for older school-aged children that focuses on regulation and appropriate outlets for emotions, as well as identifying potential sources for positive adult-child role modeling would be appropriate when working with school-aged children exposed to the arrest of a family member.

Policy Implications

Our results have important policy implications. While exposure to incarceration has been repeatedly assessed as a PTE in childhood (e.g., Arditti, Lambert-Shute, & Joest, 2003; Ball, 2009; Begun & Rose, 2011; Berry, Johnson, Severson, & Postmus, 2009; Cassidy, Poehlmann, & Shaver, 2010; Chung, 2011; Dallaire, 2007; Dannerbeck, 2005; Felitti, 2009), exposure to an arrest event is less widely considered to be a PTE in childhood. Practice and policy procedures to recognize an arrest event as a PTE and routinely assess for exposure is warranted. There are a host of judicial and legislative policies and procedures that could be implemented to mitigate the impact of child's exposure to the arrest of a parent or family member. A broad range of federal, state, and local systems, such as child welfare and juvenile justice, should review their procedures to ensure that protocols are in place to protect and address the needs of children in these situations. Minimizing children's exposure to PTEs in general, and to the potentially frightening experiences often associated with

arrest is a possible target of intervention for arresting officers and court officials (Dallaire & Wilson, 2010). This includes training first-responders (i.e., police and emergency medical professionals) in the effects of trauma on children, youth and families, as well as how to approach families and ensure the safety of children when responding to a call (Nolan, 2003). More specifically, many police departments do not have a protocol for dealing with children who are present at the time of an arrest (Neville, 2009). Police officers could be trained to minimize the exposure the child has to the event or have a mental health professional accompany or follow-up with the child to ensure they receive the supports and services they need, similar to the integrated community response model found in domestic violence research (Baker, Cunningham, & Jaffe, 2004; Drotar et al., 2003). Model programs that have implemented said policies and procedures include REACT: Supporting Children when a Caregiver is Arrested, underway at the Child Health and Development Institute of Connecticut (C. Bory, personal communication, March 22, 2012), the Child Development-Community Policing Program (CDCP) in New Haven, Connecticut (Marans et al., 1995; Marans & Berkman, 2006), the Police Action Counseling Team (PACT) in Riverside County, California, and the Families Matter Nonprofit Agency in Little Rock, Arkansas (Nolan, 2003). The CDCP model was originally replicated in numerous cities, including Providence, RI, Charlotte, NC, Wilmington, DE, Baltimore MD, and serves as the basis for similar law enforcement-mental health partnerships around the country (Marans et al., 1995; Marans & Berkman, 2006).

Trauma Informed Care

Our study supports previous findings that children exposed to arrest are more likely to have been exposed to other types of PTEs (Kolko et al., 2009; Phillips & Zhao, 2010). With that in mind, the arrest event may serve as a “red flag” for care providers to intervene and to support children and families. Children are more likely to access mental health services through primary care and schools than through specialty mental health clinics: 75% of children under age 12 years see a pediatrician at least once per year whereas 4% see a mental health professional (Costello, Pescosolido, Angold, & Burns, 1998). Thus, professionals in settings that provide all types of services to children need to be cognizant of what is occurring within the home and assist children, youth and families as needed. This may be accomplished, for instance, through screenings for PTEs as part of all pediatric well-child visits.

Within the SOC literature, there is a dearth of information focused on how systems can work collaboratively to better meet the needs of children who have been exposed to arrest or other PTEs. This includes comprehensive trauma screening and assessment protocols with providers who have expertise in research-based trauma treatment services (Baker et al., 2004; C. A. Taylor, Guterman, Lee, & Rathouz, 2009; N. Taylor, Wilson, & Igelman, 2006). Further, attention needs to be paid to the age and developmental level of the child to appropriately assess and address the challenges associated with the arrest of a family member. Increased knowledge about the context in which children may develop and the PTEs they experience are valuable opportunities for SOC to identify children who may be at increased risk for behavioral and emotional challenges.

Limitations and Future Directions

There were some limitations of this study that should be considered. First, the study was cross-sectional, limiting ability to infer causation in regard to associations between arrest event exposure and mental health status. Additionally, while this study focused on a clinical sample of children and families from predominantly low SES backgrounds choosing to receive services, some of whom had been exposed to arrest, generalizability of findings may be limited. Future research focusing specifically on children exposed to arrest would benefit from a larger sample size using a more diverse population. Further, a prospective study that follows children and families over time would allow for a more explicit look at whether the arrest event specifically affects children's mental health status. Researchers would be able to identify whether specifically the witnessing of the arrest event, or post-arrest phenomena causes the trauma (Phillips & Zhao, 2010) and whether post-arrest phenomenon (e.g., length of separation from primary caregiver) further exacerbates symptomatology. Second, while this study found that children who experienced the arrest of a family member also had higher levels of exposure to other PTEs, and that behavioral health outcomes differed by developmental level, future research should endeavor to look more in-depth at different types of PTEs and the circumstances of said traumas, such as age of child at first exposure, and perpetrators relationship to the child. Such research would begin to parcel-out the strength of the effects of different types of PTEs and their contextual factors to children's mental health outcomes and symptomatology. Third, although children's exposure to the arrest of a parent or family member appears to have negative effects, some children are able to manage this PTE and not exhibit the same level of problem behaviors. Future research that assesses potential mediating factors to this relationship, including level of family or community support and involvement, and the child's ability to cope, would assist in prevention and intervention efforts. This study relies on adult/caregiver reports about children as a means of assessing outcomes. While multiple informants are recommended in most behavioral studies of older children (Offord et al., 1996), caregiver reports of young children's mental health status is feasible and appropriate. While we were unable to assess whether a young child perceived a given event as traumatic, we referred to said events as "potentially traumatic" in an attempt to account for individual differences. The use of child-focused research methods (e.g., child interviews, play-based assessments) may better address this concern. Further, the use of multiple informants (e.g., pediatrician, day care provider, and teacher) would be facilitated by SOC involvement and trauma-informed care at multiple levels and across systems. Lastly, this study reports on the effects of overall arrest exposure on children. A more thorough understanding of the sequelae of the arrest event (e.g., circumstances leading to the arrest, behavior of parents and police officers during the arrest) was beyond the scope of the current study. Future research focusing on the specific event sequelae that may be traumatically disruptive for children is needed to develop focused prevention and intervention efforts.

Conclusion

Overall, the findings suggest that children exposed to arrest of a parent or other family member exhibit higher levels of mental health difficulties compared to peers not exposed and that these differences persist even when taking into account other trauma exposure(s) and individual and family risk factors. In addition, this study extends the findings that show

children's mental health status after exposure to arrest may vary by age. Findings point to the need to screen children for exposure to and contextual factors associated with arrest exposure and other PTEs. Further, differences in behavioral health outcomes by developmental level suggest a need to develop interventions appropriate for a child's age and stage in life. The goal for all systems is to improve outcomes for children and to maintain excellent standards of care. Addressing the impact of trauma on children and families therefore is a crucial—although often overlooked—priority for all child-serving systems.

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Table 1

Participant Characteristics by Sample

	Overall Sample (<i>N</i> = 306)	Arrest Cohort (<i>n</i> = 65)
	<i>N</i> (%)	<i>N</i> (%)
Gender		
Female	79 (26)	16 (25)
Male	227 (74)	49 (75)
Age		
0 – 3 years	65 (21)	7 (11)
4 – 6 years	143 (47)	31 (48)
7 – 11 years	98 (32)	27 (42)
Race/Ethnicity		
White	170 (56)	25 (39)
Multiracial	43 (14)	15 (23)
African American	19 (6)	6 (9)
Other	11 (4)	2 (3)
Hispanic	63 (21)	17 (26)
Family Income Last 6 Months		
Less than \$10,000	68 (22)	23 (35)
\$10,000-19,999	72 (24)	22 (34)
\$20,000-49,999	94 (31)	14 (22)
Over \$50,000	65 (21)	6 (9)
Unknown	7 (2)	0 (0)

Table 2

Exposure to Potentially Traumatic Events by Sample

	Overall Sample (N = 306)	Arrest Cohort (N = 65)
	M (SD)	M (SD)
Average PTE ^a Exposure *	2.84 (2.56)	5.38 (2.59)
	N (%)	N (%)
Number of PTEs ^b		
Zero	67 (22)	4 (6)
One PTE	48 (16)	3 (5)
Two or more *	191 (62)	59 (89)
Most often reported PTEs using TESI-PRR ^c		
Family violence ^d	220 (72)	38 (58)
Separation from a loved one	108 (35)	39 (60)
Illness or injury to someone close	77 (25)	20 (31)
Death of someone close	65 (21)	17 (55)
Arrest of a family member	65 (21)	65 (100)

^aPotentially Traumatic Event(s);

^bfor the arrest cohort, exposure refers to the number of PTE beyond exposure to arrest;

^cTraumatic Events Screening Inventory-Parent Report Revised;

^dFamily violence includes direct violence and threatened violence in the home.

* Group differences statistically significant at $p < .05$ level.

Table 3

Multiple regression models of the association between potentially traumatic event history score and children's behavioral outcomes.

Variable ^a	CBCL-I (<i>n</i> = 293)				CBCL-E (<i>n</i> = 293)			
	<i>b</i>	β	<i>p</i>	95%CI ^b	<i>b</i>	β	<i>p</i>	95%CI
Arrest Exposure	4.01	.18	.005	1.22, 6.79	3.62	.13	.019	.60, 6.65
PTE History Score	.98	.22	.001	.42, 1.53	.94	.17	.003	.33, 1.54
Age Range								
4 - 6 years	-1.62	-.09	.224	-4.24, 1.00	-4.76	-.21	.001	-7.61, -1.92
7 - 11 years	-2.24	-.11	.147	-5.28, .79	-9.13	-.38	<.001	-12.43, -5.83
Male	2.27	.10	.050	< .01, 4.53	.97	.04	.438	-1.49, 3.43
Race/Ethnicity								
Black/African-American	-.45	-.01	.837	-4.71, 3.82	-.70	-.01	.765	-5.34, 3.93
Multiracial	1.06	.04	.493	-1.98, 4.09	1.45	.05	.388	-1.85, 4.75
Hispanic	3.44	.15	.014	.71, 6.16	.21	.01	.888	-2.75, 3.18
Other	1.11	.02	.696	-4.47, 6.68	-.98	-.02	.752	-7.04, 5.09
Household Income								
\$10,000 - 19,999	.05	< .01	.974	-2.92, 3.02	.37	.01	.820	-2.86, 3.61
\$20,000 - \$49,999	1.77	.09	.226	-1.10, 4.65	2.75	.11	.084	-.37, 5.88
Over \$50,000	4.21	.18	.013	.89, 7.53	.87	.03	.637	-2.74, 4.48
Caregiver Education								
High school diploma or GED	-.01	< .01	.992	-2.82, 2.79	.20	.01	.899	-2.85, 3.25
Degree greater than high school	.80	.03	.662	-2.80, 4.40	1.33	.05	.503	-2.58, 5.25
Parental Functioning								
PSI-PCDI subscale	.34	.28	<.001	.19, .49	.60	.41	<.001	.44, .76
PSI-PD subscale	.17	.18	.004	.05, .29	.28	.20	.001	.10, .36
Constant	45.49	---	<.001	39.70, 51.28	47.66	---	<.001	41.37, 53.96
R ²	0.25				0.39			
F	(16, 276) = 5.76 <i>p</i> < .001				(16, 276) = 11.16 <i>p</i> < .001			

Note: CBCL-I = Child Behavior Checklist Internalizing Subscale, CBCL-E = Child Behavior Checklist Externalizing Subscale, PSI-PCDI = Parenting Stress Index - Parent-Child Dysfunctional Interaction subscale, PSI-PD = Parenting Stress Index - Parental Distress subscale.

^a Age reference category = 0 - 3 years, Race reference category = White, Household income reference category = <\$10,000, Caregiver education reference category = less than a high school diploma.

^b Confidence interval of b coefficient.

Multiple regression models of the association between potentially traumatic event history score and children's behavioral outcomes by age group.

Table 4

Variable ^a	CBCL-I				CBCL-E			
	b	β	p	95%CI ^b	b	β	p	95%CI
Children ages 0 through 3 years (n = 65)								
Arrest Exposure	6.77	.25	.049	.04, 13.49	3.03	.08	.481	-5.56, 11.63
PTE History Score	.86	.17	.185	-.42, 2.14	.76	.10	.355	-.88, 2.40
R ²				0.41				0.53
F	(13, 48) = 2.57		p = .009		(13, 48) = 4.24		p < .001	
Children ages 4 through 6 years (n = 143)								
Arrest Exposure	4.35	.20	.047	.06, 8.65	2.28	.09	.345	-2.48, 7.04
PTE History Score	1.18	.26	.009	.31, 2.06	1.03	.19	.038	.06, 2.00
R ²				0.25				0.37
F	(14, 120) = 2.83		p = .001		(14, 120) = 4.95		p < .001	
Children ages 7 through 11 years (n = 98)								
Arrest Exposure	3.94	.17	.190	-1.99, 9.86	6.90	.32	.005	2.10, 11.69
PTE History Score	1.10	.25	.057	-.03, 2.23	1.21	.29	.010	.30, 2.13
R ²				0.31				0.51
F	(14, 81) = 2.55		p = .004		(14, 81) = 6.04		p < .001	

Note: CBCL-I = Child Behavior Checklist Internalizing Subscale, CBCL-E = Child Behavior Checklist Externalizing Subscale.

^a Covariates in the model include child's gender and race-ethnicity, caregiver's education, parental functioning, and household income.

^b Confidence interval of b coefficient.