



Maltreated Children Who Are Adjudicated Delinquent: An At-Risk Profile

CHRISTOPHER A. MALLETT
& PATRICIA STODDARD DARE

Abstract

Children who are victims of maltreatment are at greater risk for later delinquency. While this connection is complicated, between 40 and 60 percent of all adjudicated delinquent youth have a maltreatment history. This paper examines this link and presents a delinquency profile for a population of victimized children in one Midwest county in the United States. This study utilized one population of maltreated youth ($N = 9,942$), comparing one group who were adjudicated delinquent ($n = 2,090$) and the second group who were not ($n = 7,852$). Bivariate tests identified the following risk factors that were significantly related to later youth delinquency adjudication: a child having first contact with the children's services agency after age eight; a child having more than one maltreatment referral or more than one maltreatment type; being a victim of physical abuse, sexual abuse, or neglect; having a maltreatment perpetrator who was the child's biological mother; being placed out of the home by children's services; and being adopted. Child welfare research, practice, and policy implications are set forth.

Key Words: maltreatment; delinquency; prediction; prevention

Overview

In the United States and abroad, most youth have no contact with the juvenile justice system. If a youth does have one contact, 54 percent of males and 70 percent of females in the United States never have a second (Skowrya & Cocozza, 2001). This limited juvenile court contact is also true for youths with maltreatment (abuse and/or neglect) histories – a large majority of this group is never court-involved (Wiebush, Freitag, & Baird, 2001). However, a broad social policy concern is that youths with maltreatment histories who are involved with juvenile courts make up a disproportionately large percentage of the juvenile justice population and pose unique challenges to the courts and child welfare systems (Dembo, Schmeidler, Nini-Gough, Borden, & Manning, 1998; National Council of Juvenile and Family Court Judges, 2005; Wasserman & Seracini, 2001). Specifically, in the United States, these maltreated youth constitute between 40 and 60 percent of the total 1.6 million youth adjudicated delinquent annually (Currie & Tekin, 2006; Ford, 2005; Ford, Chapman, Hawke, & Albert, 2007; Lemmon, 2006; Loeber & Farrington, 2001; Maxfield & Widom, 1996; Preski & Shelton, 2001; Stahl, 2006). Delinquency as defined in the USA is similar across states in that the juvenile court once adjudicates accordingly then has

supervision and oversight authority over the youth – often resulting in probation supervision. Thus making a child who is a victim of maltreatment at higher risk for later youth delinquency adjudication (Lemmon, 2006; Preski & Shelton, 2001; Widom & Maxfield, 2001; Wiebush, Freitag, & Baird, 2000; Wiebush, McNulty, & Le, 2001). While this connection between childhood maltreatment and youth delinquency is complicated (Smith & Thornberry, 1995), the concerns are eminent (Currie & Tekin, 2006; Egeland, Tuppert, Appleyard, & van Dulmen, 2002; Hamilton, Falshaw, & Browne, 2002; Wasserman & Seracini, 2001). Preventing these first juvenile justice system contacts and potential delinquency outcomes is important, particularly because once a youth is arrested and detained (more than just a contact or diversion program), he or she has a 70 percent chance of being rearrested or returned to detention within one year of release (Bezruki, Varana, & Hill, 1999; Skowrya & Cocozza, 2001).

The quagmire for child welfare personnel, law enforcement officers, judges, and vulnerable families, is in identifying which of these maltreated children are most at risk for later juvenile court involvement (Maas, Herrenkohl, & Sousa, 2008). If these children are identified, prevention efforts can then be utilized. To further these efforts, this paper examines the link between maltreatment and delinquency and presents child welfare measures and delinquency findings for a population of victimized children in one United States Midwest county. This line of inquiry and research study contributes to child welfare practice knowledge in further identifying and delineating this population that is most at risk, who may in turn be able to be provided preventative juvenile delinquency interventions. These efforts may lead to intervention provisions to reduce delinquent outcomes for this maltreated youth population (Maschi, Bradley, & Morgen, 2008; Stewart, Livingston, & Dennison, 2008).

The Maltreatment to Delinquency Link

Identifying maltreated children at risk for later delinquency is difficult. Research findings have been contradictory and at times unclear, resulting from methodological and research design differences in the studies (Lemmon, 2006; Quas, Bottoms, & Nunez, 2002; Widom & Maxfield, 1996). Early reports of maltreatment histories for incarcerated individuals involved case studies (Kakar, 1996) and observational studies of aggressive behavioral outcomes for maltreated children. These reports were inconsistent (George & Main, 1979, Straker & Jacobson, 1981, Wasserman & Allen, 1983, as cited in Kakar, 1996). Retrospective case studies (Kakar, 1996) suggested the link between maltreatment and delinquency, but often times these studies did not utilize comparison groups (Garbarino & Plantz, 1986; Widom, 1989).

More rigorous prospective studies have been conducted more recently. These studies followed maltreated children over time and some have included control groups. One study identified that maltreatment led to a 1.8 times greater chance of juvenile arrest, although the pattern of risk varied by gender, race, and maltreatment type (Maxfield & Widom, 1996). Some studies have identified victims of physical abuse and neglect to have elevated risk, but not victims of sexual abuse (Egeland, Yates, Appleyard, & van Dulmen, 2002; Fagan, 2005; Herrenkohl, Egolf, & Herrenkohl, 1997; Maxfield & Widom, 1996; Widom & Maxfield, 2001). Narrower definitions of delinquency have been used in finding that maltreatment type did not have a significant impact on delinquency, but followed the youth only through age 15 (Zingraff, Leiter, Johnson, and Myers, 1993); whereas others followed the individuals to age 32 (Maxfield & Widom, 1996). Significant relationships have been found between maltreatment severity and moderate to violent delinquency (Maxfield & Widom, 1996; Smith & Thornberry, 1995). Also, increased and repeated exposure to childhood maltreatment led to higher delinquency risks (Smith & Thornberry, 1995). Lemmon (1999; 2006) used cohort designs and found that maltreatment recurrence is a significant predictor of the initiation, continuation, and severity of delinquency, even after controlling for other delinquency risk factors. Currie and Tekin (2006) found that maltreatment incidence

rates and severity levels impact criminal behavior for males and victims of sexual abuse, and that experiencing multiple forms of maltreatment increased delinquency outcomes. Although these findings are contradicted by Ryan and Testa (2005) and Widom (1991) who found that out-of-home placement was harmful to children or of no value, and Johnson-Reid and Barth (2000) who found placement instability actually increased youth's risk of delinquency.

Exposure to more severe maltreatment leads to a higher risk of children being placed out of their home or being placed for adoption, with the timing and duration of maltreatment found to influence later violent delinquency (Smith & Thornberry, 1995; Thornberry, Ireland, & Smith, 2001). Harsh discipline at age eight and authoritarian parenting at age ten have been found to predict later violent crime convictions (Farrington, 1989). Harsh discipline at ages seven to nine was also found associated with later physical violence by females (Magdol, Moffitt, Caspi, & Silva, 1998), and being perpetrators of physical abuse for early adolescent males and females (Fagan, 2005) – making these older children more at risk for juvenile court involvement.

To date, no single risk factor has been identified as a causal link to delinquency and youth violence outcomes (Howing, Wodarski, Kurtz, Gaudin, & Herbst, 1990; Maas, Herrenkohl, & Sousa, 2008; Stouthamer-Loeber, Wei, Homish, & Loeber, 2002; Preski & Shelton, 2001; Turner, Hartman, Exum, & Cullen, 2007; Widom & Maxfield, 2001). There exist multiple risks in children's backgrounds including deficits in family, school, peers, and neighborhoods (Hawkins, Herrenkohl, Farrington, et al., 2000; Hay, Fortson, Hollist, Altheimer, & Schaible, 2006; Heilbrun, Goldstein, & Redding, 2005; Howell, 2003; Loeber & Dishion, 1983; Loeber & Farrington, 2001; Mears & Aron, 2003; Strouthamer-Loeber, Wei, Homish, & Loeber, 2002). These risk factors tend to be cumulative and to have interactive effects, making prediction difficult (Ford, et al., 2007; Lemmon, 2006). However, being a victim of maltreatment continues to be found even in the presence of these other risk factors (Lemmon, 1999; Smith & Thornberry, 1995; Wiebush, McNulty, & Le, 2000).

This study continued this inquiry focused on the link between maltreatment and delinquency and asked which of nine risk factors are significantly associated with later youth delinquency adjudication among a population of maltreated children?

Method

Population/Sample

This study utilized a population of all cases from one Children's Services Agency (CSA) from 1991 to 2004 in one Midwest county in the United States (Institutional Review Board approval #27141-MAL-HS). Selection criteria from the full population of all child welfare hotline referrals from 1991 to 2004 included those children (and families) that were investigated by the County's Children's Services Agency for maltreatment with substantiated or indicated outcomes ($n = 9,942$). From this investigated population, two groups of children were identified. The first group were children investigated by the County's CSA with a determination of substantiated or indicated maltreatment (abuse or neglect) and who were at a later time adjudicated delinquent by the County's Juvenile Court ($n = 2,090$). The second group were children investigated by the County's CSA with a determination of substantiated or indicated maltreatment (abuse or neglect) who were not later adjudicated delinquent by the County's Juvenile Court ($n = 7,852$). Within the total population (9,942) the majority of children were Caucasian (64.9 percent; African-American – 19.9 percent; Hispanic-American – 5.0 percent; other/unidentified – 10.2 percent) and female (56.0 percent; males – 44.0 percent). When comparing the two sub-groups within the population reviewed here – those with and without delinquency outcomes – the court adjudicated youth were majority male (51.7 percent; females – 48.3 percent) and Caucasian (62.6 percent; African-American – 24.3 percent; Hispanic-American – 5.8 percent; other/

unidentified – 7.3 percent); while the non-court involved youth were majority female (58.1 percent; males – 41.9 percent) and Caucasian (65.5 percent; African-American – 17.5 percent; Hispanic-American – 12.9 percent; other/unidentified – 4.1 percent).

Pilot Study

An initial pilot study of 250 children from the County's CSA, who were victims of substantiated maltreatment during the 1991 to 2004 time frame, identified nine possible risk factors from a predictive model that may be related to later delinquency. This pilot study compared child and family characteristics of 125 randomly selected maltreated children who were not later adjudicated delinquent to 125 randomly selected maltreated children who were later adjudicated delinquent (in calendar years 2005 and 2006) by the County's Juvenile Court. A series of statistical tests identified nine risk factors (variables) which are utilized in this study. This paper reports on a confirmatory study designed to determine if the variables significant in the pilot study retain their significance within the County's full maltreatment population.

Data Collection

To collect measurements on these nine risk factors, the County's CSA provided aggregate data for years 1991 to 2004 on these 9,942 cases. The County's CSA's reports provided could not include all maltreatment to delinquency risk factors identified in previous published research because of limitations in the County's information and technology data tracking system. However, the variables of interest for this study, that were identified by the pilot study, were available and provided – children's services referrals, type of abuse, number of maltreatment types experienced, perpetrator type, out-of-home child placement (including adoption), and whether the child was first referred to the children's services agency before or after age eight. Frequencies for these variables were provided in a two by nine table; therefore, disaggregated data analysis was not possible. Data provided to this research team by the County CSA was de-identified and available only in this format for the full population.

To determine delinquency, the County's Juvenile Court provided the County's CSA (CSA) a list of all youth that the County's Juvenile Court judges adjudicated delinquent from 1991 to 2008. This Juvenile Court list was cross-checked with the CSA's 9,942 case list to determine which youth were later in time adjudicated delinquent ($n = 2,090$). Utilizing the most current adjudication information available (through 2008) allowed accurate identification of delinquency status for the County's population of maltreated children, and ensured that in all cases maltreatment experiences preceded delinquency adjudication and enough time had lapsed to capture this delinquency measurement. Reliability checks with identifying information were provided between public entities to ensure accuracy.

Variables

Based on the identified maltreatment to delinquency risk factors discussed earlier in the paper and used in the pilot study, nine child and family variables were measured in this study (Currie & Tekin, 2006; Fagan, 2005; Farrington, 1989; Lemmon, 2006; Magdol, Moffitt, Caspi, & Silva, 1998; Maxfield & Widom, 1996; Thornberry, Ireland, & Smith, 2001; Widom & Maxfield, 2001). These nine independent variables and one dependent variable were all measured dichotomously. The independent variables included first CSA contact after age eight (contact

was defined as a maltreatment referral that was investigated by the CSA) (y/n), more than one CSA referral (defined as more than one maltreatment referral that was investigated by the CSA) (y/n), perpetrator was biological mother (y/n), child was placed out of the home by CSA (y/n), child was adopted (y/n), child was a victim of physical abuse (y/n), child was a victim of sexual abuse (y/n), child was a victim of neglect (y/n), and child was a victim of more than one maltreatment type (y/n). It should be noted that maltreatment types were measured according to Ohio state law definitions and subsequent CSA investigations and findings for sexual abuse, physical abuse, and neglect. The dependent variable was measured as adjudicated delinquent by the County Juvenile Court (or not adjudicated delinquent).

Table 1

Risk Factors

| Risk Factor | | Delinquency (n,%) | | Chi Square Value |
|--|-----|-------------------|------|------------------------|
| | | Yes | No | |
| First CSA contact after age 8* | Yes | 1538 | 552 | $\chi^2 (1df) = 819.1$ |
| | | 74% | 26% | |
| | No | 3022 | 4830 | |
| More than one CSA referral* | Yes | 1732 | 358 | $\chi^2 (1df) = 391.8$ |
| | | 83% | 17% | |
| | No | 4675 | 3177 | |
| Victim of physical abuse* | Yes | 449 | 1641 | $\chi^2 (1df) = 24.5$ |
| | | 21% | 79% | |
| | No | 1319 | 6533 | |
| Victim of sexual abuse* | Yes | 691 | 1399 | $\chi^2 (1df) = 20.8$ |
| | | 33% | 67% | |
| | No | 2196 | 5656 | |
| Victim of neglect* | Yes | 705 | 1385 | $\chi^2 (1df) = 25.6$ |
| | | 34% | 66% | |
| | No | 3123 | 4729 | |
| Victim of more than one maltreatment type* | Yes | 369 | 1721 | $\chi^2 (1df) = 10.5$ |
| | | 18% | 82% | |
| | No | 1159 | 6693 | |
| Perpetrator was biological mother* | Yes | 300 | 1790 | $\chi^2 (1df) = 233.9$ |
| | | 14% | 86% | |
| | No | 213 | 7639 | |
| Child was placed out of home by CSA* | Yes | 424 | 1666 | $\chi^2 (1df) = 136.1$ |
| | | 20% | 80% | |
| | No | 843 | 7009 | |
| Child was adopted* | Yes | 29 | 2061 | $\chi^2 (1df) = 16.0$ |
| | | 1% | 99% | |
| | No | 238 | 7614 | |
| | | 3% | 97% | |

* Significant $p < .01$

Data Analysis

Due to confidentiality and privacy issues regarding access to disaggregated data, multivariate tests could not be performed; however, bivariate tests were conducted. In order to evaluate the bivariate relationship between the dichotomous independent variables and the dichotomous dependent variable, delinquency adjudication, a series of Chi Square tests were performed.

Results

Results of the statistical analysis found that each of the nine independent variables was statistically related to delinquency ($p < .01$) (see Table 1). In other words, for all children in the population these nine factors all are related to later youth offending behavior and juvenile court delinquency adjudication: a child's first children's services agency contact after age 8 ($X^2 = 819.1$, $df = 1$); more than one children's services agency referral for a child ($X^2 = 391.8$, $df = 1$); a child who was a victim of physical abuse ($X^2 = 24.5$, $df = 1$); a child who was a victim of sexual abuse ($X^2 = 20.8$, $df = 1$); a child who was a victim of neglect ($X^2 = 25.6$, $df = 1$); a child who was a victim of more than one maltreatment type ($X^2 = 10.5$, $df = 1$); if the perpetrator was the biological mother of the child ($X^2 = 233.9$, $df = 1$); if the child was placed out of the home by children's services ($X^2 = 136.1$, $df = 1$); and if the child was adopted ($X^2 = 16.0$, $df = 1$).

Discussion

There are statistically significant associations among these youth and family characteristics and child welfare agency measurements with later youth delinquency adjudication. This study contributes some unique findings to this growing body of research seeking to identify and explain these connections, but not surprisingly, also comports and contrasts with earlier research (Lemmon, 2006; Smith and Thornberry, 1995; Widom & Ames, 1994; Wiebush, et al., 2001).

Two findings are unique to this study within the maltreatment to delinquency literature. First, is the identification that children having their first children's services contact after the age of eight is associated with delinquency. Intuitively it makes sense that a longer duration of abuse (if that can be presumed), without intervention, could be more damaging; or that later physical abuse is significantly harmful (Fagan, 2005). Other research identified that earlier involvement with children's services agencies may act as a protective delinquency factor for maltreated children (Currie & Tekin, 2006; Lemmon, 2006; Smith & Thornberry, 1995; Wiebush, et al., 2001), though not always (Ryan and Testa, 2005). Indeed, some early involvement efforts for vulnerable children are known to prevent later delinquent outcomes (Haugaard & Feerick, 2002; Mears & Aron, 2003; Roberts, 2004). This highlights the importance of prompt referral and subsequent core child protective services including maltreatment prevention, out-of-home placement, and adoption. However, research to date is unclear as to whether out-of-home placement positively or negatively impacts later delinquency adjudication (Currie and Tekin, 2006; Johnson-Reid & Barth, 2000; Lemmon, 1999, 2006; Ryan & Testa, 2005).

A second finding that is unique is the relationship between delinquency and having a maltreatment perpetrator who is the child's biological mother. Other research to date has either not identified this as significant, or what looks more likely, has not measured and tested for a relationship between these specific variables, requiring further investigation. It might be particularly useful for future researchers to investigate if victimization by specific perpetrators is

predictive of later youth delinquency, allowing practitioners and child welfare personnel to be aware of this higher risk.

This study also found that being a victim of physical abuse, sexual abuse, or neglect was significantly related to later delinquency adjudication. Some researchers have identified physical abuse as a predictor of juvenile delinquency (Egeland, et al., 2002; Maxfield & Widom, 1996; Rebellon & Van Gundy, 2005) while others have not found this link (Grogan-Kaylor & Otis, 2003; Zingraff, Leiter, Johnson, & Myers, 1993). Sexual abuse victimization has been found by others to be both significantly related to delinquency (Currie & Tekin, 2006; Siegel & Williams, 2003; Swanson, Parkinson, O'Toole, Shrimpton, & Oates, 2003) and not related (Grogan-Kaylor & Otis, 2003; Maxfield & Widom, 1996; Widom & Maxfield, 2001). Similarly, neglect, when reviewed as a distinct maltreatment type, has been found to predict delinquency (English, Widom, & Brandford, 2002; Grogan-Kaylor & Otis, 2003; Maxfield & Widom, 2006) and not to predict delinquency (Egeland, et al., 2002; Zingraff, et al., 1993). A limitation in these comparisons is that some previous study definitions did not differentiate, or made more broad or narrow, maltreatment types in the analysis – combining abused or neglected children into one comparison group (Maas, et al., 2008; Smith & Thornberry, 1995; Strouthamer-Loeber, et al., 2002).

This study identified that recurrent maltreatment, as measured by more than one children's service agency referral, was also significantly related to delinquency adjudication. This is consistent with other findings (Hamilton, et al., 2002; Maxfield & Widom, 1996; Smith & Thornberry, 1995; Widom & Maxfield, 1996). Multiple and/or recurrent maltreatment is often a predecessor to eventual out-of-home placement of the child or youth (Wiebush, et al., 2001), and here this placement out of the home was also found to be related to later offending behavior and delinquency adjudication.

This study's results expand the literature regarding the relationship between maltreatment and delinquency in reinforcing some already identified related variables (physical abuse, sexual abuse, neglect, and recurrent maltreatment), finding factors that are not clearly identified to date (adoption, out-of-home placement), and identifying two relatively unique risk factors (first children's services agency contact after age eight, perpetrator being the biological mother).

Limitations

These results have some limitations. First, the findings apply to only one Midwest county (in the United States) of maltreated children, served by one children's services agency, limiting the external validity. However, with previous research findings (Currie & Tekin, 2006; Lemmon, 2006; Maxfield & Widom, 1996; Smith & Thornberry, 1995; Widom & Maxfield, 1996; Zingraff, et al., 1993) from other similar populations both supporting, and at times differing from these identified risk factors, some findings use is in order, though replication is necessary. Second, variables chosen for inclusion and measurement in this study were based on previous pilot study outcomes and data availability. There is a chance that other variables that were not utilized could have been found to be statistically significant (or not) in identifying later delinquency. Third, only bivariate statistical analysis could be utilized due to the aggregated data source; precluding any multivariate analysis that may have confirmed, refuted, or furthered some of these reported findings. Fourth, the aggregated data provided by the County's CSA was only as accurate as the initial information systems input. Fifth, the juvenile court may have under-counted the number of delinquency adjudications because it would be unknown if the child (and family) moved out of the county after CSA involvement – this could have impacted the results. Sixth, this study's design does not allow for a prediction of delinquency; however, the significant associations found between maltreatment and these adjudication outcomes warrants further predictive model research.

Conclusion

These results should be reviewed in light of research that has found delinquency to be a cumulative outcome for the child, with these risk factors having interactive effects (Ford, et al., 2007; Hawkins, et al., 2000; Wiebush, et al., 2000). Predicting delinquency is a difficult research to practice task for this county, and all child welfare jurisdictions in the United States and abroad, and one that should not be done in a vacuum of understanding. However, identifying maltreated children who are most at risk for later delinquency is an important endeavor: 1.6 million youth are adjudicated delinquent annually in the United States and, on any given day, an average of 54,500 of these youth are incarcerated in detention or correctional institutions (Office of Juvenile Justice and Delinquency Prevention, 2003; Sickmund, Sladky, & Kang, 2004; Stahl, 2006). These incarcerations are increasingly found to be harmful to the youth (Dodge, Dishion, & Landsford, 2006; Holman & Zeidenberg, 2006; Torres & Ooyen, 2002).

Proactive preventative interventions during or after children's services agency supervision are important for these vulnerable children and their families. If practitioners working with this maltreated population are able to identify which of these children are most at risk for later offending behavior and delinquency adjudication, then these interventions, or potentially just monitoring, have a greater likelihood of effectiveness. Risk factor profiles, like that presented in this paper, can help identify these most at-risk children and then wisely use child welfare system and juvenile justice system resources collaboratively.

References

- BEZRUKI, D., VARANA, D., & HILL, C. (1999). *An evaluation of secure juvenile detention*, Legislative Audit Bureau, Madison, WI., available at <http://www.legis.state.wi.us/LAB/reports/99-13full.pdf>.
- CURRIE, J. & TEKIN, E. (2006). *Does child abuse cause crime?*, available at http://aysps.gsu.edu/publications/2006/downloads/CurrieTekin_ChildAbuse.pdf.
- DEMBO, R., SCHMEIDLER, J., NINI-GOUGH, B., SUE, C.C., BORDEN, P., & MANNING, D. (1998). Predictors of recidivism to a juvenile assessment center: A three-year study. *Journal of Child and Adolescent Substance Abuse*, 7, 57-77.
- DODGE, K.A., DISHION, T.J., & LANDSFORD, J.E. (eds.) (2006a). *Deviant peer influences in programs for youth*. New York: Guilford Press.
- EGELAND, B., TUPPETT, Y., APPLEYARD, K., & VAN DULMEN, M. (2002). The long-term consequences of maltreatment in the early years: A developmental pathway model to antisocial behavior. *Children's Services: Social Policy, Research, and Practice*, 5(4), 249-260.
- ENGLISH, D.J., WIDOM, C.S., & BRANDFORD, C. (2002). *Childhood victimization and delinquency, adult criminality, and violent criminal behavior: A replication and extensions*. Final report presented to the National Institute of Justice, Grant No. 97-IJ-CX-0017.
- FAGAN, A.A. (2005). The relationship between adolescent physical abuse and criminal offending: Support for an enduring and generalized cycle of violence. *Journal of Family Violence*, 20(5), 279-290.
- FARRINGTON, D.P. (1989). Early predictors of adolescent aggression and adult violence. *Violence and Victims*, 4(2), 79-100.
- FORD, J.D. (2005). *Treatment implications of altered neurobiology, affect regulation and information processing following child maltreatment*. *Psychiatry Annotated*, 35, 410-419.
- FORD, J.D., CHAPMAN, J.F., HAWKE, J., & ALBERT, D. (2007). *Trauma among youth in the juvenile justice system: Critical issues and new directions*, National Center for Mental Health and Juvenile Justice, available at www.ncmhjj.com.

- GARBARINO, J. & PLANTZ, M. (1986). Child abuse and juvenile delinquency: What are the links? In J. GARBARINO, C. SCHELLENBACH, & J. SEBES (eds.), *Troubled youth, troubled families* (p. 27-39). New York, Aldine de Gruyter.
- GROGAN-KAYLOR, A. & OTIS, M. (2003). The effect of child maltreatment on adult criminality: A tobit regression analysis. *Child Maltreatment*, 8(2), 129-137.
- HAMILTON, C.E., FALSHAW, L., & BROWNE, K.D. (2002). The link between recurrent maltreatment and offending behavior. *International Journal of Offender Therapy and Comparative Criminology*, 46, 75-94.
- Haugaard, J. & Feerick, M. (2002). Interventions for maltreated children to reduce their likelihood of engaging in juvenile delinquency. *Children's Services Social Policy, Research, and Practice*, 5(4), 285-297.
- HAWKINS, J., HERRENKOHL, T., FARRINGTON, D., BREWER, D., CATALANO, R., HARACHI, T., & COTHERN, L. (April 2000). *Predictors of youth violence*. Office of Juvenile Justice and Delinquency Prevention, available at http://www.ncjrs.org/html/ojjdp/jjbul2000_04_5/contents/html.
- HAY, C., FORTSON, E., HOLLIST, D., ALTHEIMER, I., & SCHAIBLE, L. (2006). The impact of community disadvantage on the relationship between the family and juvenile crime. *Journal of Research in Crime and Delinquency*, 43(4), 326-356.
- HEILBRUN, K., GOLDSTEIN, N., & REDDING, R. (2005). *Juvenile delinquency: Prevention, assessment, and intervention*. Oxford University Press.
- HERRENKOHL, R.C., EGOLF, B.P., & HERRENKOHL, E.C. (1997). Preschool antecedents of adolescent assaultive behavior: A longitudinal study. *American Journal of Orthopsychiatry*, 67, 422-432.
- HOLMAN, B. & ZIEDENBERG, J. (2006). *The dangers of detention: The impact of incarcerating youth in detention and other secure congregate facilities*, ANNIE E. CASEY FOUNDATION, BALTIMORE MD.
- HOWELL, J.C. (2003). *Preventing & reducing juvenile delinquency: A comprehensive framework*. Thousand Oaks, CA, Sage Publications.
- HOWING, P.T., WODARSKI, J.S., KURTZ, P.D., GAUDIN, J.M., & HERBST, E.M. (1990). Child abuse and delinquency: The empirical and theoretical links. *Social Work*, 35, 244-249.
- JOHNSON-REID, M. & BARTH, R.P. (2000). From maltreatment report to juvenile incarceration: The role of child welfare services. *Child Abuse & Neglect*, 24, 505-520.
- KAKAR, S. (1996). *Child abuse and delinquency*. University Press of America, Maryland.
- LEMMON, J.H. (1999). How child maltreatment affects dimensions of juvenile delinquency in a cohort of low-income urban males. *Justice Quarterly*, 16, 357-376.
- LEMMON, J.H. (2006). The effects of maltreatment recurrence and child welfare on dimensions of delinquency. *Criminal Justice Review*, 31(1), 5-32.
- LOEBER, R. & DISHION, T. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin*, 94(1), 68-99.
- LOEBER, R. & FARRINGTON D.P. (2001). *The significance of child delinquency*, in LOEBER & FARRINGTON (eds.), *Child delinquents: Development, intervention, and service needs* (1-22). Thousand Oaks CA, Sage Publications.
- MAAS, C., HERRENKOHL, T.I., & SOUSA, C. (2008). Review of research on child maltreatment and violence in youth. *Trauma, Violence, & Abuse*, 9(1), 56-67.
- MAGDOL, L., MOFFITT, T., CASPI, A., & SILVA (1998). Developmental antecedents of partner abuse: A prospective-longitudinal study. *Journal of Abnormal Psychology*, 107, 375-389.
- MASCHI, T., BRADLEY, C., & MORGEN, K. (2008). Unraveling the link between trauma and delinquency: The mediating role of negative affect and delinquent peer exposure. *Youth Violence and Juvenile Justice*, 26(2), 136-157.
- MAXCHI, T., BRADLEY, C., & MORGEN, K. (2008). Unraveling the link between trauma and delinquency: The Mediating role of negative affect and delinquent peer exposure. *Youth Violence and Juvenile Justice*, 6(2), 136-157.
- MAXFIELD, J.G. & WIDOM, C.S. (1996). *The cycle of violence: Revisited six years later*, Archives of Pediatric and Adolescent Medicine, 150, 390-395.
- MEARS, D. & ARON, L. (2003). *Addressing the needs of youth with disabilities in the juvenile justice system: The current state of knowledge*. Washington, DC: Urban Institute, Justice Policy Center.

- NATIONAL COUNCIL OF JUVENILE AND FAMILY COURT JUDGES (2005). *Juvenile delinquency guidelines: Improving court practice in juvenile delinquency cases*. Reno, NV.
- OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION (2003). *Census of juveniles in residential placement databook*, Washington DC, available at http://ojjdp.ncjrs.org/ojstatbb/cjrp/asp/State_Adj.asp.
- PRESKI, S. & SHELTON, D. (2001). The role of contextual, child, and parent factors in predicting criminal outcomes in adolescence. *Issues in Mental Health Nursing*, 22, 197-205.
- QUAS, J., BOTTOMS, B., & NUNEZ (2002). Child maltreatment and delinquency: Framing issues of causation and consequence. *Children's Services Social Policy, Research, and Practice*, 5(4), 245-248.
- REBELLION, C.J. & VAN GUNDY, K. (2005). Can control theory explain the link between parental and physical abuse and delinquency? A longitudinal analysis. *Journal of Research in Crime and Delinquency*, 42(3), 247-274.
- ROBERTS, A.R. (2004). *Juvenile justice sourcebook: Past, present, & future*, Oxford University Press.
- RYAN, J.P. & TESTA, M.F. (2005). Child maltreatment and juvenile delinquency: Investigating the role of placement and placement stability. *Children and Youth Services Review*, 27, 227-249.
- SICKMUND, M., SLADKY, T.J., & KANG, W. (2004). *Census of juveniles in residential placement databook*, available at <http://www.ojjdp.ncjrs.org/ojstatbb/cjrp/>.
- SIEGEL, J. & WILLIAMS, L. (2003). The relationship between child sexual abuse and female delinquency. *Journal of Research in Crime and Delinquency*, 40(1), 71-94.
- SKOWYRA, K. & COCOZZA, J. (2001). *Blueprint for change: A comprehensive model for the identification and treatment of youth with mental health in contact with the juvenile justice system*, National Center for Mental Health and Juvenile Justice available at <http://www.ncmhjj.com/Blueprint/default.shtml>.
- SMITH, C. & THORNBERRY, T.P. (1995). The relationship between childhood maltreatment and adolescent involvement in delinquency, *Criminology*, 33, 451-481.
- STAHL, A.L. (2006). *Delinquency cases in juvenile court, 2002*, U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, Washington DC, available at <http://www.ncjrs.gov/pdffiles1/ojjdp/fs200602.pdf>.
- STEWART, A., LIVINGSTON, M., & DENNISON, S. (2008). Transitions and turning points: Examining the links between child maltreatment and juvenile offending. *Child Abuse & Neglect*, 32(1), 51-66.
- STOUTHAMER-LOEBER, M., WEI, E., HOMISH, D. & LOEBER, R. (2002). Which family and demographic factors are related to both maltreatment and persistent serious juvenile delinquency? *Children's Services: Social Policy, Research, and Practice*, 5(4), 261-272.
- SWANTSON, H., PARKINSON, P., O'TOOLE, A., SHRIMPTON, S., & OATES, K. (2003). Juvenile crime, aggression and delinquency after sexual abuse: A longitudinal study. *British Journal of Criminology*, 43(4), 729-749.
- THORNBERRY, T.P., IRELAND, T.O., & SMITH, C.A. (2001). The importance of timing: The varying impact of childhood and adolescent maltreatment on multiple problem outcomes. *Development and Psychopathology*, 13(4), 957-979.
- TORRES, C. & OUYEN, M. (2002). *Briefing paper*, Committee on Youth Services, New York, available at <http://webdocs.nyccouncil.info/attachments/56862.htm?CFID=2743&CFTOKEN=47936712>
- TURNER, M., HARTMAN, J., EXUM, M. & CULLEN F. (2007). Examining the cumulative effects of protective factors: Resiliency among a national sample of high-risk youths. *Journal of Offender Rehabilitation*, 46 (1/2), 81-111.
- WASSERMAN, G.A. & SERACINI, A.G. (2001). *Family risk factors and interventions*, in R. LOEBER & D.P. FARRINGTON (eds.) (165-189), *Child delinquents: Development, intervention, and service needs*, Thousand Oaks, CA: Sage Publications.
- WIEBUSH, R., FREITAG, R., & BAIRD, C. (2001). *Preventing delinquency through improved child protection services*, OJJDP, Department of Justice, available at <http://www.ncjrs.gov/pdffiles1/ojjdp/187759.pdf>.

- WIEBUSH, R., MCNULTY, B., & LE, T. (2000). *Implementation of the intensive community-based aftercare program*, Bulletin, Department of Justice, OJJDP, Washington D.C.
- WIDOM, C.S. (1989). Does violence beget violence? A critical examination of the literature. *Psychological Bulletin*, 106(1), 3-28.
- WIDOM, C.S. (1991). The role of placement experiences in mediating the criminal consequences of early childhood victimization. *American Journal of Orthopsychiatry*, 61, 195-209.
- WIDOM, C.S. & AMES, M.A. (1994). Criminal consequences of childhood sexual victimization. *Child Abuse & Neglect*, 18, 303-318.
- WIDOM, D.C. & MAXFIELD, M.G. (March 2001). *Research in brief: An update on the "cycle of violence"*. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, Washington, DC.
- ZINGRAFF, M.T., LEITER, J., JOHNSON, M.C., & MYERS, K.A. (1993). The mediating effect of good school performance on the maltreatment-delinquency relationship. *Journal of Research on Crime and Delinquency*, 31, 62-91.

Authors' notes

Christopher A. Mallett, Ph.D., J.D., LISW

Associate Professor
School of Social Work
Cleveland State University
2121 Euclid Avenue, #CB324
Cleveland, Ohio, 44115-2214
216-523-7514
c.a.mallett@csuohio.edu

Patricia Stoddard Dare, Ph.D., MSW

Assistant Professor
Cleveland State University's School of Social Work