

### RESEARCH BRIEF

## A prospective, longitudinal study of risk factors for delinquency among maltreated youth

### PURPOSE OF THE STUDY

*Maltreated youth tend to enter into the juvenile justice system at younger ages than non-maltreated youth.*

*Early onset of delinquency among maltreated youth compounds their risk of adverse developmental outcomes, including serious and continued offending. This study prospectively examined risk factors for maltreated youth who have their delinquency cases adjudicated for the first time between ages 9 and 14.*

### BACKGROUND & PURPOSE

The purpose of this research is to provide foundational scholarship for the development of preventative interventions in order to reduce delinquency cases among young, maltreated youth. The involvement of maltreated youth in the juvenile justice system (i.e., "crossing over") is a pervasive societal problem. Overall, delinquency rates are 47% higher for abused and neglected youth than youth in the general population (Ryan & Testa, 2005), with recurrences of maltreatment increasing youth's risk of delinquency and recidivism (Lemmon, 2006). Maltreated youth also tend to become involved in delinquency at younger ages than their counterparts who have no maltreatment histories (Halemba et al., 2004).

Maltreated youth's early involvement in delinquency compounds the risks experienced by these already vulnerable youth. The early onset of delinquency for maltreated youth is associated with adverse developmental outcomes including mental health and educational challenges, continued offending, and maltreatment of their own children (Herz et al., 2012). Understanding the timing of delinquency is foundational for designing effective preventive interventions targeted to risks for continuing offending behaviors.

Although maltreated youth are at increased risk for delinquency, a substantial number of those youth do not become delinquent. There is wide variation in the developmental outcomes of youth likely resulting from differences in the developmental timing of exposure to risk and protective factors. Existing scholarship, however, typically aggregates maltreated youth who become involved in delinquency at widely varying ages. This study explores risk factors associated with the early onset of delinquency for maltreated youth in Minnesota.

The research questions are:

1. *What proportion of maltreated youth first cross over to the juvenile justice system by age 14?*
2. *What factors predict early onset of delinquency among maltreated youth?*



OVERALL, DELINQUENCY RATES ARE 47% HIGHER FOR ABUSED AND NEGLECTED YOUTH THAN YOUTH IN THE GENERAL POPULATION, WITH RECURRENCES OF MALTREATMENT INCREASING YOUTH'S RISK OF DELINQUENCY AND RECIDIVISM.

## METHODS

*Through Minn-LInK, we identified 5,002 3rd graders in academic year 2008-2009 who had at least one official record of maltreatment and no previous delinquency record. We then followed this cohort over a 6-year period to investigate any involvement in the juvenile justice system, the youngest age of any involvement in delinquency, and factors associated with risk for delinquency.*

## FINDINGS

*Approximately 7% of maltreated 3rd graders became involved in the juvenile justice system by 9th grade. The results indicated that gender (male), belonging to particular racial groups (Black, Native American, and Hispanic), diagnoses of emotional/behavioral disabilities, receiving an out-of-school suspension, and experiencing more than three previous maltreatment incidents were significant predictors of delinquency for maltreated youth.*

Using Minn-LInK, we utilized the administrative records of 62,248 3rd graders enrolled in Minnesota public schools in academic year 2008-2009 (See Figure 1). Of these 3rd graders, we identified 5,002 students who had at least one official record of maltreatment (i.e., neglect, physical abuse, sexual abuse, mental injury and emotional harm), and no previous delinquency record. The records of these were followed longitudinally to examine the youngest age of any involvement in the juvenile justice system over a 6-year period from academic year 2008-2009 through 2013-2014. We included relevant individual, family, school, and child welfare variables available to us through the administrative databases, including race, disability, special education status, emotional and behavioral disorders, socioeconomic status, attendance rate, out-of-school suspension, reading and math scores, age at first known episode of maltreatment, number of maltreatment incidents, and any out-of-home placement.

Descriptive statistics were used to examine youth's demographic characteristics. A life table was constructed to display the proportion of youth crossing over by using a yearly interval. Cox proportional hazards regression was used to investigate youth's youngest age of any involvement in delinquency, and to identify factors associated with risk for delinquency.

## YOUTH CHARACTERISTICS

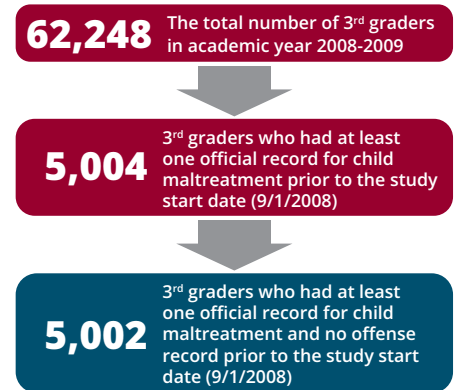
Approximately half of youth were male (50%). They were primarily White (59%), but youth of color were disproportionately represented. For example, the proportion of crossover youth who were Black was approximately 23%. In contrast, Black students only comprised 11% of all Minnesota public school students (Minnesota Department of Education, 2017). Crossover youth also were disproportionately from low income families. In contrast to 38% of all Minnesota public school students, the large majority of crossover youth (71%) were from low-income families. Mean scores in reading and math standardized tests for maltreated youth were 54.5 (SD=19.9) and 53.6 (SD=11.5), respectively. More than half of the youth (60%) were attending school at rates similar to others in the state public schools (the state average attendance rate was 94.8% of school days).

## CROSSING OVER INTO THE JUVENILE JUSTICE SYSTEM

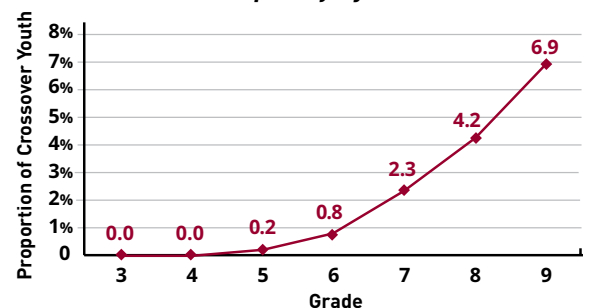
Over the 6-year study period, approximately 7% of youth (n = 332) crossed over to the juvenile justice system. These rates are slightly lower than those found in several previous studies which ranged from 9% to 45% (Kelley et al., 1997). This discrepancy may be due to differences in how delinquency was defined. While most existing studies defined crossing over as arrest before youth touched the juvenile justice system regardless of adjudication, this study focused on adjudicated cases in the courts data base.

Figure 2 provides a visual representation of the timing of youth's first delinquency adjudications. Not surprisingly, the pattern is relatively flat until 6th grade when there is a steady increase through the remaining study period. Given a typical age-crime pattern that peaks between the ages of 15 and 18 for initial delinquency

**Figure 1: Sampling Procedure**



**Figure 2: Timing of Maltreated Youth's First Delinquency Adjudication**



(Piquero, 2008), the pattern of first adjudication in these maltreated youth falls into early onset of delinquency (prior to age 14).

## FACTORS PREDICTING EARLY ONSET OF DELINQUENCY

Several variables significantly predicted early onset of delinquency for maltreated youth (see Table 1). Male gender increased the hazard of crossing over by 87%. The higher male crime rate is often attributed to male gender role socialization. Boys are often encouraged to be tough, active and physical (Kruttschnitt, 2013). This socialization may be conducive to externalizing behaviors and to conforming to adult expectations of delinquents. Indeed, scholars examining gender-specific pathways from maltreatment to delinquency find that males tend to display externalizing reactions (i.e., aggression and violence) and thus more immediately engage in delinquency (Topitzes et al., 2011). On the other hand, girls tend to display internalizing reactions (e.g., depression and suicidality), resulting in delayed criminal behaviors. In addition, girls are more likely to receive attention from professionals, which may operate as a protective factor for early delinquency. For example, mandatory reporters show higher responsiveness of reporting for girls because they perceive them to be more vulnerable than boys (Herz et al., 2012).

Consistent with previous research on crossover youth, Black, Hispanic, and Native American youth were more likely than White youth to cross over with an 80%, 73% and 134% increase in the hazard, respectively. Although the disproportionate risk of delinquency for Black and Hispanic youth has been well documented in the crossover youth literature (Herz et al., 2012), Native American youth have been understudied. The two studies that have included Native American youth (Ryan et al., 2013; Ryan et al., 2016), found that they are not at higher risk of delinquency compared to White youth. This inconsistency may be partly due to different racial composition in the youth population as well as differences in policies affecting youth across states. The percentage of Native American youth in this study (approximately 7%) is slightly higher than that of the previous studies (4% to 5%) allowing for more statistical power to detect differences.

Emotional/behavioral disorders also increased the risk for first-time adjudication by 96%. Emotional/behavioral issues can be manifested as deviant behaviors such as truancy, stealing, substance abuse, or affiliation with delinquent peers in early adolescence (Steinberg, 2017). Although some maladaptive behaviors by young adolescents can be informally handled in the child welfare system, it is relatively common for child welfare personnel to instead involve law enforcement. The result is maltreated children's early involvement in the juvenile justice system (Ryan et al., 2007).

Involvement in more than three previous incidents of maltreatment were associated with a higher risk of first-time adjudication, with a 102% increase in the risk. When children experience repeated maltreatment, their relationships with adults may be compromised. Children who are neglected may not understand or be motivated to engage in positive relationships with adults. Children who are abused may learn that aggressive or disrespectful behavior is an appropriate social response including to conflict (Widom, 1989). Difficulties in forming relationships with adults can result in problematic behaviors and increased risk for delinquency, for example, aggressive or disrespectful behaviors at school that result in out-of-school suspensions.

Out-of-school suspension was also related to a higher hazard for first-time adjudication. Youth who received out-of-school suspensions experienced a 53% increase in hazard for first-time adjudication. Youth who receive suspensions may be struggling with behavioral and social issues that latter develop into delinquency. When they then are suspended, they may miss academic content and fall behind their classmates, and feel disconnected from school. Furthermore, youth may respond to exclusionary discipline in a variety of ways. When youth internalize oppositional identities, they may embrace problematic behaviors and values that can ultimately lead to delinquency. Thus, exclusionary discipline may actually encourage problematic behavior in some youth.

**Table 1**  
*Factors Predicting Early Onset of Delinquency among Maltreated Youth*

	3rd Graders (n=5,002)		
	$\beta$	S.E.	Exp ( $\beta$ )
<b>Gender: Male</b>	0.62***	0.13	1.87
<b>Race (Reference: White)</b>			
Asian	-0.49	0.58	0.61
Black	0.59***	0.14	1.80
Hispanic	0.55*	0.23	1.73
Native	0.85***	0.19	2.34
<b>Special Education: Yes</b>	-0.03	0.17	0.97
<b>Emotional/Behavioral Disorders: Yes</b>	0.67**	0.21	1.96
<b>Socioeconomic Status: Yes</b>	0.25	0.15	1.29
<b>Attendance Rate: Above the State Average</b>	-0.55	1.64	0.58
<b>Academic Achievement</b>			
Reading Score	-0.01	0.01	0.99
Math Score	0.00	0.01	0.99
<b>Out-of-school Suspension: Yes</b>	0.42*	0.20	1.53
<b>Mean Age at First CPS</b>	0.42	0.03	1.04
<b>Number of Previous CPS: &gt;3</b>	0.70***	0.14	2.02
<b>Out-of-home Placement: Yes</b>	0.03	0.15	1.03

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Conclusion

Existing interventions tend to focus on maltreated youth after they have become involved in the juvenile justice system. Given the additional risks posed by juvenile justice system involvement to the development of these already vulnerable youth, our focus is on providing foundational research to inform prevention. For maltreated youth who first crossed over into delinquency by early adolescence, we found risk factors that may signal increased risk for delinquency, including being male, being a child of color, having a diagnosed emotional and behavioral disorder, and being suspended from school.

Once youth at highest risk of delinquency are identified, preventive interventions may be put in place. Such interventions should be individualized and non-stigmatizing, and appropriately tailored to youth's unique strengths, challenges, and interests. Preventive interventions should be appropriately tailored. In addition, youth with maltreatment histories are vulnerable to stigmatization (e.g., due to their out-of-home placements and/or family challenges such as substance abuse, poverty, etc.). Interventions which could further underscore their socially undesired differences from their peers should be implemented with caution.

Mentoring may be one individualized, non-stigmatizing, preventative intervention. Efforts could be made to link youth with mentors within their own communities to establish stable, long-term relationships and to encourage and support prosocial activities and relationships (Schwartz et al., 2013). Solutions to crossing over require interventions that are developmentally sensitive and simultaneously address risk factors across multiple ecological levels.

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### LIMITATIONS

*The administrative data available to this study are not likely to include all factors relevant to youth's risks for early involvement in delinquency. Additional research is needed to understand fully the unique experiences of maltreated youth who become involved in delinquency at relatively early ages.*