### ARTICLE IN PRESS

Child Abuse & Neglect xxx (xxxx) xxx-xxx



Contents lists available at ScienceDirect

### Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg



#### Research article

## Promoting the development of resilient academic functioning in maltreated children<sup>★</sup>

Megan R. Holmes<sup>a,\*</sup>, Susan Yoon<sup>b</sup>, Kristen A. Berg<sup>a</sup>, Jamie L. Cage<sup>d</sup>, Adam T. Perzynski<sup>c</sup>

#### ARTICLE INFO

# Keywords: Maltreatment Language development Academic competence Resilience Longitudinal

#### ABSTRACT

This study examined (a) the extent of heterogeneity in the patterns of developmental trajectories of language development and academic functioning in children who have experienced maltreatment, (b) how maltreatment type (i.e., neglect or physical abuse) and timing of abuse explained variation in developmental trajectories, and (c) the extent to which individual protective factors (i.e., preschool attendance, prosocial skills), relationship protective factors (i.e., parental warmth, absence of past-year depressive episode, cognitive/verbal responsiveness) and community protective factors (i.e., neighborhood safety) promoted the development of resilient language/academic functioning trajectories. Longitudinal data analyses were conducted using cohort sequential Growth Mixture Model (CS-GMM) with a United States national representative sample of children reported to Child Protective Services (n = 1,776). Five distinct developmental trajectories from birth to age 10 were identified including two resilient groups. Children who were neglected during infancy/toddlerhood or physically abused during preschool age were more likely to be in the poorer language/academic functioning groups (decreasing/recovery/decreasing and high decreasing) than the resilient high stable group. Child prosocial skills, caregiver warmth, and caregiver cognitive stimulation significantly predicted membership in the two resilient academic functioning groups (low increasing and high stable), after controlling for demographics and child physical abuse and neglect. Results suggest that it is possible for a maltreated child to successfully achieve competent academic functioning, despite the early adversity, and identifies three possible avenues of intervention points. This study also makes a significant contribution to the field of child development research through the novel use of CS-GMM, which has implications for future longitudinal data collection methodology.

#### 1. Introduction

Child maltreatment continues to be a serious problem that negatively affects children. In 2015, nearly 700,000 children were

E-mail address: mholmes@case.edu (M.R. Holmes).

http://dx.doi.org/10.1016/j.chiabu.2017.07.018

Received 19 February 2017; Received in revised form 6 July 2017; Accepted 24 July 2017 0145-2134/ © 2017 Elsevier Ltd. All rights reserved.

<sup>&</sup>lt;sup>a</sup> Jack, Joseph and Morton Mandel School of Applied Social Sciences, Case Western Reserve University, United States

<sup>&</sup>lt;sup>b</sup> The College of Social Work, The Ohio State University, United States

<sup>&</sup>lt;sup>c</sup> Center for Health Care Research and Policy, Case Western Reserve University, United States

<sup>&</sup>lt;sup>d</sup> School of Social Work, Virginia Commonwealth University, United States

<sup>\*</sup> This document includes data from the National Survey on Child and Adolescent Well-Being, which was developed under contract with the Administration on Children, Youth, and Families, U.S. Department of Health and Human Services (ACYF/DHHS). The data were provided by the National Data Archive on Child Abuse and Neglect.

<sup>\*</sup> Corresponding author at: Mandel School of Applied Social Sciences, Case Western Reserve University, 10900 Euclid Ave., Cleveland, OH 44106-7164, United States.

M.R. Holmes et al.

Child Abuse & Neglect xxx (xxxx) xxx-xxx

found to be victims of child maltreatment by Child Protective Services (CPS). More than three quarters of those children suffered neglect, with approximately 17.2% suffering physical abuse, 6.2% suffering psychological abuse, and 8.4% suffering sexual abuse (U.S. Department of Health, 2017). Compared with non-maltreated children, maltreatment has been linked to deficits in language functioning such as poorer receptive language, expressive language, and receptive vocabulary (Lum, Powell, Timms, & Snow, 2015; Sylvestre, Bussieres, & Bouchard, 2016) as well as poorer academic functioning such as increased absenteeism, involvement in special education, lower math and reading grades, greater grade repetition, lower standardized achievement scores, and lower GPA (Eckenrode, Laird, & Doris, 1993; Kendall-Tackett & Eckenrode, 1996; Leiter, 2007; Leiter & Johnsen, 1994; Rowe & Eckenrode, 1999). However, even with this heightened risk from maltreatment, some children continue to thrive and achieve adaptive development despite early adverse life events (Norman et al., 2012). Empirical studies have identified various protective factors that promote resilience (i.e., the capacity for successful adaptation in the face of adversity; Masten, Best, & Garmezy, 1990) among maltreated children, but few studies have examined these relations with academic functioning longitudinally or evaluated protective factors across the multiple levels of the social ecology—individual, relationship, and community. It is imperative to focus research on protective factors that may provide insight into how to promote resilience and well-being among children who have experienced maltreatment.

This study was guided by bioecological theory and developmental psychopathology perspective. Bioecological theory encompasses the complexity of outcomes when children experience maltreatment, while also accounting for the interrelated connections that link a child with his or her environment (i.e., a person-context relationship; Bronfenbrenner, 1979). This perspective emphasizes that there are multiple contributors to one's outcomes, and that ultimate adaptation or maladaptation occurs as a result of interplay between the evolving individual and contextual factors. The developmental psychopathology perspective emphasizes that early experiences set the foundation for later development and that patterns of behavior interact with a changing external environment to produce subsequence behavior (Sroufe & Rutter, 1984). For instance, it is possible that children who experience maltreatment will display adaptive development over time because of multiple protective factors occurring throughout the child's development despite experiencing maltreatment. Thus, the overarching conceptual framework for this study posits that development takes place in an environment defined by the many interrelated dimensions of the social ecology—individual, relationship, and community. Therefore, the current study's goals were threefold: (a) to examine the extent of heterogeneity in the patterns of developmental trajectories of language/academic functioning in children who have experienced maltreatment (i.e., neglect or physical abuse), (b) to identify how maltreatment type and timing of abuse explain variation in developmental trajectories, and (c) to examine the extent to which individual protective factors (i.e., preschool attendance, prosocial skills), relationship protective factors (i.e., parental warmth, absence of past-year depressive episode, cognitive/verbal responsiveness) and community protective factors (i.e., neighborhood safety) promote the development of resilient language development and academic functioning trajectories.

#### 1.1. Heterogeneity in patterns of language and academic functioning

Broadly, researchers have established the link between child maltreatment and poorer language and academic functioning. Two recent meta-analyses found that maltreated children had lower language skills when compared to non-maltreated children (Lum et al., 2015; Sylvestre et al., 2016). Specifically, Lum et al. (2015) examined 26 cross-sectional studies and showed that maltreated children had poorer receptive language, expressive language, and receptive vocabulary than non-maltreated children. Similarly, in Sylvestre et al. (2016) meta-analysis, children who experienced physical abuse and/or neglect had poorer receptive language, expressive language, and pragmatics skills than non-maltreated children. In a study that compared 420 maltreated children and 420 matched non-maltreated children in grades K through 12, maltreated children had lower math and reading grades, lower scores on standardized math and reading tests, and higher grade repetition compared with non-maltreated children (Eckenrode et al., 1993; Kendall-Tackett & Eckenrode, 1996; Rowe & Eckenrode, 1999). Similar results were found in a study that linked 715 CPS reports to school district records, including GPA and absenteeism (Leiter, 2007).

Although significant relations have been identified, it is important to examine the variation in outcomes within a sample of maltreated children. In other words, although maltreatment has been linked to deficits in language functioning and poorer academic outcomes in children, not all maltreated children display such poor outcomes. Spratt et al. (2012) compared the language development of children who experienced neglect (n = 17) and international adoptees (n = 15) to a control group (n = 28) of children who had no history of neglect nor adoption. Although the results showed that children who experienced neglect had significantly lower levels of expressive language, receptive language, and oral composite than the control group, the neglected children scored within normal range on all language related measures. Similarly, studies have shown that although maltreated children are performing on average lower than non-maltreated children, a subset of the maltreated youth do not have lower academic functioning (Crozier & Barth, 2005; Leiter & Johnson, 1994; Rowe & Eckenrode, 1999). For example, in a cross-sectional study that compared the intelligence, math, and reading scores of 2498 maltreated children with the standardized scores of youth in the general population, nearly two thirds of the maltreated youth had average or above average scores. Specifically, 66% of the maltreated youth scored at or above average on intelligence, nearly 70% on tests measuring reading, and 57% on scores measuring math (Crozier & Barth, 2005).

Longitudinal empirical research using a large sample of children age 10–13 years old has suggested that there are individual differences in developmental trajectories of academic functioning, with distinctive subpopulations (i.e., heterogeneous groups of individuals; Duchesne, Larose, Guay, Vitaro, & Tremblay, 2005). It may be that only certain subpopulations display maladaptive academic functioning whereas others show more resilient and adaptive academic functioning over time. Recent advances in statistical analyses have enabled researchers to investigate such individual differences in developmental trajectories by empirically identifying unobserved subpopulations. A person-centered approach is one such useful analytical framework that allows the identification of

# دريافت فورى ب متن كامل مقاله

## ISIArticles مرجع مقالات تخصصی ایران

- ✔ امكان دانلود نسخه تمام متن مقالات انگليسي
  - ✓ امكان دانلود نسخه ترجمه شده مقالات
    - ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  - ✓ امكان دانلود رايگان ۲ صفحه اول هر مقاله
  - ✔ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
    - ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات