Dimensions of maltreatment and academic outcomes for youth in foster care

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ABSTRACT

Childhood maltreatment is often associated with youth's ability to successfully function in school. Youth with a history of maltreatment often receive lower grades and scores on tests of academic achievement, as well as demonstrate more negative behaviors in school, as compared to non-maltreated youth. However, there are many inconsistencies in previous studies examining the association between maltreatment and academic outcomes in youth. One potential reason for mixed findings within the literature could be a result of how maltreatment is measured and operationalized. The current study examined if the methods used to define and describe maltreatment contribute to the association between maltreatment and academic functioning in youth. Youth in foster care ($N = 490$, $M_{age} = 13.13[3.09]$) were recruited and information on their maltreatment history and academic functioning was obtained from official agencies, school records, and self-reported measures. Using a SEM framework when examining each dimension separately in the same model, results suggested that frequency maltreatment was more predictive of academic behavior, as compared to type and severity. No dimensions were associated with grades and significant findings were only observed for models using self-report data. However, when examined using a measurement model approach, maltreatment as a whole was associated with school behavior, which was found for both self-report and case file measurement models. The findings suggest a need for research on academic functioning to take a comprehensive approach when measuring and defining maltreatment as this may be a more robust and accurate predictor of academic functioning.

Childhood maltreatment is associated with an extensive and diverse range of negative outcomes affecting cognitive, language, and emotion regulatory abilities (e.g., Lansford et al., 2002). Thus, it is not surprising that maltreated youth tend to be at greater risk for negative academic outcomes as compared to non-maltreated youth (for review see Romano, Babchishin, Marquis, & Fréchette, 2015). Maltreated youth often receive lower grades, lower achievement test scores, and fail or repeat a grade, as compared to non-maltreated youth (Eckenrode, Laird, & Doris, 1993). Additionally, research also suggests that maltreatment is related to greater rates of negative classroom behaviors, such as missing more school days and receiving more school suspensions, as compared to non-maltreated youth (Lansford et al., 2002).

However, there are mixed findings when examining the association between maltreatment and academic functioning, making it unclear as to what degree maltreatment contributes to academic difficulties. For example, multiple studies have reported that maltreated youth perform similarly on academic achievement tests when compared to non-maltreated, matched peers (e.g., Briscoe-

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Smith & Hinshaw, 2006). Contrarily, other studies report that almost half or more than half of the study's sample demonstrated behavioral or academic achievement difficulties (e.g., Leiter & Johnsen, 1997). Previous evidence suggests that one potential reason for these discrepant findings could be differences in maltreatment measurement methodology (English, Graham, Litrownik, Everson, & Bangdiwala, 2005; Litrownik et al., 2005). One common methodological difference between studies is the source of maltreatment information. Some studies measure maltreatment using self-reported abuse, while others rely on case file data. Differences in methodology of data collection could skew results. Second, operationalization techniques tend to vary greatly across studies. This often includes operationalizing abuse by type only and excluding other dimensions of maltreatment (e.g., severity or frequency). The current study sought to determine if these two aspects of maltreatment measurement, source and dimensions, might explain differences reported in the maltreatment-academic relation.

1. Maltreatment measurement and academic functioning

The two most common sources for information on youth maltreatment exposure history areself-report and data from official state social service or foster care records (Fallon et al., 2010). Self-report techniques (e.g., questionnaires, interviews) may provide researchers with a more complete maltreatment history, as compared to case files. This could be because many acts of abuse occur in private, and youth may be the only possible reporter (outside of the perpetrator) that has knowledge of their experience (MacMillan, Jamieson, & Walsh, 2003). However, the accuracy of self-report methods is often questioned because of potential biases (e.g., recall inaccuracy, worry of stigmatization; Greenhoot, 2011). Moreover, youth may not always be aware of their exposure to certain types of maltreatment (i.e., neglect at a young age).

Another method commonly used is the extraction of maltreatment information from state and federal agency case files. This typically involves the use of a coding system where trained personnel review case file reports, narrative descriptions made by caseworkers, in order to organize and operationalize a child's maltreatment exposure. Coding case files is considered a more reliable measure of maltreatment histories, compared to self-report, due to case files being a more objective approach to document maltreatment (Shaffer, Huston, & Egeland, 2008). However, official records are also subject to potential report and investigation biases, which could lead to inaccurate estimates of a child's maltreatment history (Jonson-Reid, Drake, & Kohl, 2009). Case file reports may be limited to what is known or substantiated, potentially resulting in only a small number of cases ever being identified by official agencies. The true prevalence rates of youth who experience maltreatment is estimated to be two or three times higher than what is identified in case files (e.g., Turner, Finkelhor, & Ormrod, 2010).

Given the differences in data collection methods and potential biases implicit in both methods, inconsistencies between sources are common. Cho and Jackson (2016) reported concordance between case file and self-reported abuse ranged from approximately 20% to 60% depending on maltreatment type. These inconsistencies may partly explain differences in association with the academic outcomes. For example, in the literature on psychopathology and child maltreatment, Cohen, Brown, and Smailes (2001) found that self-reported maltreatment was associated with lower levels of psychopathology (e.g., depression, anxiety), as compared to those with maltreatment experiences indicated by official records.

2. Operationalization of maltreatment dimensions

2.1. Maltreatment type

The majority of research on academic outcomes and maltreatment have examined the differences between maltreatment types in relation to academic outcomes, such as grades and classroom behavior (Romano et al., 2015). Overall, studies report that children exposed to neglect, as opposed to other types of abuse tend to demonstrate lower grades, academic achievement scores, and more school behavioral problems (Eckenrode et al., 1993; Hildyard & Wolfe, 2002). Despite some consistency, findings are mixed. For example, Crozier and Barth (2005) examined academic achievement in relation to maltreatment subtype (physical abuse, sexual abuse, neglect, and other) and found no differences between maltreatment type and math and reading achievement scores. In contrast, Eckenrode et al. (1993) categorized youth by maltreatment type and reported that neglected and physically abused youth had significantly lower grades than sexually abused youth. In addition, findings regarding academic behavior are inconsistent. For example, Anthonysamy and Zimmer-Gembeck (2007) found differences in teacher ratings of aggression and prosocial behavior between non-maltreated neglected youth, whereas Kurtz, Gaudin, Wodarski, and Howing (1993) found no difference in problem behaviors between neglected and non-maltreated youth. One reason for the discrepancies may be the result of inconsistent and limited maltreatment operationalization techniques. Crozier and Barth (2005) categorized youth into maltreatment subtype based on reports from case workers, whereas Eckenrode et al. (1993) categorized youth using case file data.

2.2. Maltreatment severity

Within the maltreatment literature at large and academic literature specifically, severity is not as widely studied or included in maltreatment measurement, as type (English, Bangdiwala, & Runyan, 2005). For those studies that have included measures of maltreatment severity, the findings are mixed, which may reflect differences in how severity is operationalized. Coohey, Renner, Hua, Zhang, and Whitney (2011) found no association between math and reading scores and maltreatment severity when using a dichotomous "severe" or "not severe" categorization. When examining the effect of maltreatment dimensions and academic outcomes, Kinard (2001) used the highest severity rating for a single event and found no association between maltreatment severity for the