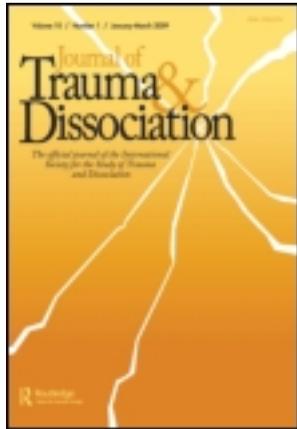


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Dissociative Symptoms and Academic Functioning in Maltreated Children: A Preliminary Study

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Research has identified numerous negative sequelae of child maltreatment that may adversely impact academic functioning (AF). There is limited research, however, on the relationship between specific trauma symptoms, such as dissociation, and poor AF. This cross-sectional study examined the association between dissociative symptoms and multi-informant reports of AF in a sample of maltreated youth with a history of out-of-home care. Participants included 149 youth and their caregivers and teachers. Dissociative symptoms were measured based on youth

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report, whereas AF was assessed using (a) standardized measures of academic achievement, (b) youth-report measures of school membership and perceived academic competence, (c) caregiver reports of youths' performance in school, and (d) teacher reports of student grades. Results of multiple regression analyses suggested that dissociative symptoms were generally related to poorer AF after IQ, age, gender, and the total number of school and caregiver transitions were controlled. Implications for school personnel are discussed.

KEYWORDS *dissociation, trauma symptoms, academic functioning, maltreatment, child abuse*

INTRODUCTION

Child maltreatment is a significant public health problem that affects more than 1 million children in the United States each year (Sedlak et al., 2010). Maltreated children perform significantly worse on standardized achievement tests (Eckenrode, Laird, & Doris, 1993), receive lower grades (Kendall-Tackett & Eckenrode, 1996), need more academic assistance (Crozier & Barth, 2005; Leiter & Johnsen, 1997), have higher absenteeism rates (Leiter & Johnsen, 1997), are more likely to repeat a grade (Kendall-Tackett & Eckenrode, 1996; Scarborough & McCrae, 2010), and are more likely to drop out of school (Buzi, Smith, & Weinman, 1998; Ensminger, Lamkin, & Jacobson, 1996) than children in the general population.

Maltreatment is also associated with mental health problems, such as dissociation, that may impair academic functioning (AF; Hulette, Freyd, & Fisher, 2011; Macfie, Cicchetti, & Toth, 2001). *Dissociation* is defined as “a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment” (American Psychological Association, 2000, p. 519). This psychological response is commonly believed to be a way of coping with severe trauma such as childhood maltreatment (Freyd, 1996; Putnam, 1993). Dissociative symptoms can cause significant problems in everyday life. Although the experience of dissociation varies, common symptoms include memory problems, unresponsiveness, and flashbacks (Putnam, 1993). These symptoms might interfere with children's ability to focus their attention in class and/or bond with their classmates, both of which could lead to poor AF. No known studies have examined the specific relationship between dissociative symptoms and AF, even though dissociation has been associated with other mental health and cognitive problems (e.g., attention-deficit/hyperactivity disorder, impaired executive

functioning; DePrince, Weinzierl, & Combs, 2008, 2009; Matsumoto & Imamura, 2007).

The present study examined the relationship between dissociative symptoms and AF within a sample of youth placed in foster care as a result of maltreatment. It was hypothesized that maltreated children with greater dissociative symptoms, relative to those with fewer, would evidence poorer AF as measured by standardized test scores, sense of school membership, perceived academic competence, and caregiver- and teacher-rated academic competence.

METHOD

Participants

Recruitment. Participants were youth involved in a longitudinal evaluation of Fostering Healthy Futures, a preventive intervention for maltreated children placed in out-of-home care (see Taussig, Culhane, & Hettleman, 2007). The current study did not evaluate the impact of the intervention program. Participants were recruited for the original study if (a) they were 9–11 years old and had been court-ordered into out-of-home care within the preceding year because of maltreatment, (b) they were proficient in English, and (c) they were not known to be developmentally delayed. A total of 93% of eligible youth and their caregivers were recruited ($n = 162$). Data for the current study were collected cross-sectionally during a follow-up assessment conducted approximately 11 months post-baseline. Of those interviewed at baseline, 92% ($n = 149$) completed the follow-up assessment. Participants who were lost to follow-up did not differ from study participants in terms of age, gender, ethnicity, or baseline placement type.

Participant characteristics. The final sample was 53% female ($n = 79$), with a mean age of 11.33 years (range = 9.50–12.99; $SD = 0.88$ years) at follow-up. Placement types included kinship care (37.6%), non-relative foster care (32.9%), reunification with biological parents (21.5%), and institutional care (8.0%). The sample of youth was ethnically diverse: 49% Hispanic or Latino/a, 43.6% Caucasian, 30.9% African American, 12.8% American Indian or Alaska Native, 2.7% Asian, and 0.7% Hawaiian or Pacific Islander (nonexclusive categories).

Procedures

The study was approved by the university's institutional review board and informed consent/assent was obtained. All measures were administered verbally by trained interviewers. Youth and caregivers were each paid \$40. Teachers completed a pen-and-paper survey regarding the child's AF and were paid \$25.

Measures of Independent Variables

Dissociative symptoms were measured using the dissociation subscale of the Trauma Symptom Checklist for Children. The dissociation subscale score is a standardized *T* score that measures dissociative symptomatology, including derealization, emotional numbing, and memory problems. Items include “Going away in my mind” and “Feeling like things aren’t real.” The dissociation subscale has demonstrated good reliability ($r_s = .80-.89$) among clinical and nonclinical samples (Briere, 1996).

Control variables included age, gender, total number of school and caregiver transitions, and IQ as measured by the Kaufman Brief Intelligence Test (K-BIT). The K-BIT is a screening measure of intellectual functioning that yields standard scores with a mean of 100 and a standard deviation of 15. The composite score was used for the current study. The composite score is highly correlated with more comprehensive measures of IQ (e.g., the K-BIT IQ Composite is correlated $r = .80$ with the Wechsler Intelligence Scale for Children Full Scale IQ) and has demonstrated good split-half reliability ($r_s = .88-.95$; Kaufman & Kaufman, 1990).

Measures of Dependent Variables

The Psychological Sense of School Membership scale consists of 18 youth-report items measuring inclusion, involvement, and the student–teacher relationship. Items are rated on a scale from 1 (*not at all true*) to 3 (*very true*). Ratings across all items were averaged for each participant. The Psychological Sense of School Membership scale has demonstrated high split-half reliability ($r_s = .77-.88$) and validity across samples (Goodenow, 1993; Hagborg, 1994, 1998).

The Scholastic Competence subscale of the Self-Perception Profile for Children consists of 16 items measuring children’s perceptions of their academic abilities. This study examined the mean response for each participant, with possible scores ranging from 1 (*low scholastic competence*) to 4 (*high scholastic competence*). This scale has demonstrated high split-half reliability ($r_s = .80-.85$) and validity across samples (Harter, 1985).

Caregivers completed the School Scale of the Child Behavior Checklist, which incorporates ratings of grades, school problems, and special education or grade repetition. Teachers completed the Academic Performance Scale of the Teacher Report Form, which reflects teachers’ ratings of youth performance (i.e., grades) relative to the youth’s grade level. On both scales, higher scores indicate better AF. These measures have demonstrated good test–retest reliability (Child Behavior Checklist, $r_s = .80-.94$; Teacher Report Form, $r_s = .60-.96$) and validity across samples (Achenbach & Rescorla, 2001).

The Wechsler Individual Achievement Test (WIAT) screener is a brief measure of academic achievement designed for children ages 5–19. The

composite score was used in the current study. The WIAT has been shown to have excellent reliability ($r_s = .88-.97$) and validity for the age range of the present sample (Psychological Corporation, 1992).

Data Analysis

Descriptive statistics and bivariate correlations were calculated for independent, dependent, and control variables. Sample sizes varied because of some missing data on dependent variables and are reported in Table 3. A series of multiple regression models was used to estimate the relationships between dissociation and measures of AF, controlling for IQ, age, gender, and number of school and caregiver transitions.

RESULTS

Descriptive Statistics and Bivariate Correlations

Descriptive statistics for all study variables can be found in Table 1. A total of 9% of youth had dissociation scores within the clinical ($T > 65$) or borderline ($T > 60$) range. The distribution of dissociation scores was relatively normal ($M = 45.82$, $SD = 9.27$) and displayed good variability. The data suggest that, on average, participants felt a strong sense of membership in their schools and reported relatively positive perceived academic competence. The mean score on the WIAT composite scale was 95.22, which is somewhat lower than the mean for the standardization sample. On average, teachers and caregivers tended to rate students on academic performance and school behavior within 1 SD below the mean of the standardization sample.

Table 2 displays correlations between study variables. Greater dissociative symptoms were associated with lower sense of school membership, poorer perceived academic competence, and lower WIAT scores.

TABLE 1 Descriptive Statistics

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Dissociation	147	45.82	9.27
IQ score	149	97.60	12.25
Age	146	11.33	0.88
School transitions	144	5.85	2.89
Caregiver transitions	145	5.20	2.71
School membership	143	2.49	0.33
Academic competence	145	3.02	0.74
WIAT composite score	141	95.22	12.38
Teacher academic ratings	136	43.15	8.12
Caregiver academic ratings	132	42.10	8.66

Notes: WIAT = Wechsler Individual Achievement Test.

TABLE 2 Bivariate Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Dissociation	–										
2. IQ score	–.11	–									
3. Gender	–.07	.01	–								
4. Age	–.00	.02	.08	–							
5. School transitions	.11	.07	.09	.27**	–						
6. Caregiver transitions	.11	–.09	–.01	.09	.34**	–					
7. School membership	–.28**	.18*	–.02	–.06	–.08	.18*	–				
8. Academic competence	–.22**	.25**	.02	–.08	–.02	–.02	.46**	–			
9. WIAT composite score	–.20*	.60**	.10	.02	.01	–.07	.29**	.30**	–		
10. Teacher academic ratings	–.06	.48**	.08	.01	.06	–.06	.09	.29**	.61**	–	
11. Caregiver academic ratings	–.17	.54**	.05	.02	–.03	–.11	.19*	.29**	.52**	.36**	–

Notes: WIAT = Wechsler Individual Achievement Test.

* $p < .05$

** $p < .01$

Of the control variables, only IQ and number of caregiver transitions were related to dissociation and AF. IQ was positively associated with all five measures of AF. Caregiver transitions were positively related to youths' sense of school membership. Correlations among control variables indicated that older youth and those who had experienced more caregiver transitions had attended more schools. Generally speaking, measures of AF were positively correlated with one another except that youth-reported school membership and teachers' academic ratings were not related.

Association Between Dissociative Symptoms and AF

Table 3 summarizes the results of multiple regression models examining the association between dissociative symptoms and AF. Dissociation was negatively associated with youth reports of school membership, perceived academic competence, and WIAT composite scores, accounting for 9%, 6%, and 3% of the variance in these measures, respectively. Although dissociation was not significantly associated with caregiver or teacher reports of AF, the direction of these relationships was consistent with hypotheses. IQ was significantly related to youth perceptions of academic competence, WIAT composite score, teacher academic ratings, and caregiver academic ratings after other variables were controlled. IQ was not associated with school membership. Age, gender, caregiver transitions, and school transitions were not associated with any measures of AF after the other variables in the models were controlled.

TABLE 3 Association Between Dissociative Symptoms and Academic Functioning

Variable	β	t	p	sr^2	Adjusted R^2
School membership ($n = 137$)					.10**
Dissociation	-.29	-3.48**	.001	.09	
IQ	.12	1.50	.137	.02	
Gender	-.03	-0.39	.694	.00	
Age	-.10	-1.12	.265	.01	
Number of schools	.01	0.12	.906	.00	
Number of caregivers	-.13	-1.42	.159	.02	
Academic competence ($n = 139$)					.10**
Dissociation	-.23	-2.84**	.005	.06	
IQ	.26	3.14**	.002	.07	
Gender	.02	0.19	.847	.00	
Age	-.14	-1.61	.111	.02	
Number of schools	.01	0.15	.884	.00	
Number of caregivers	.06	0.67	.502	.00	
WIAT composite score ($n = 136$)					.34**
Dissociation	-.15	-2.16*	.033	.03	
IQ	.57	8.03**	<.001	.33	
Gender	.10	1.46	.148	.02	
Age	-.05	-0.71	.479	.00	
Number of schools	-.02	-0.27	.784	.00	
Number of caregivers	.02	0.28	.781	.00	
Teacher academic ratings ($n = 129$)					.20**
Dissociation	-.03	-0.40	.689	.00	
IQ	.47	5.82**	<.001	.22	
Gender	.07	0.91	.363	.01	
Age	-.04	-0.45	.654	.00	
Number of schools	.04	0.47	.640	.00	
Number of caregivers	-.03	-0.39	.699	.00	
Caregiver academic ratings ($n = 127$)					.28**
Dissociation	-.13	-1.64	.104	.02	
IQ	.52	6.79**	<.001	.28	
Gender	.03	0.44	.658	.00	
Age	.02	0.30	.764	.00	
Number of schools	-.05	-0.53	.597	.00	
Number of caregivers	-.05	-0.59	.559	.00	

Notes: WIAT = Wechsler Individual Achievement Test.

* $p < .05$

** $p < .01$

DISCUSSION

The current study examined the relationship between dissociative symptoms and AF in maltreated children with a history of out-of-home placement. This study used a multi-method, multi-informant design that controlled for age, gender, IQ, and total number of caregiver and school transitions. This study adds to the extant literature by providing a novel explanation for the finding that maltreated children are more likely to struggle in school.

The results show that children with more dissociative symptoms tended to have poorer AF as indexed by measures of school membership, academic

competence, and standardized achievement tests. Dissociation may hinder children's ability to become actively involved in school, thereby decreasing the likelihood that they will participate in scholastic and/or extracurricular activities, resulting in a poorer sense of school membership. Lack of engagement may explain the relationship between dissociation and lower perceived academic competence. Children who are less engaged in classroom activities or relationships at school may receive lower grades and less frequent praise from teachers and peers, which could precede lower perceived academic competence. Alternatively, poor academic performance may lead to lower perceived competence and school membership, but it was impossible to test the causal direction of the relationships in this study. Future research examining the temporal sequence of these constructs is needed. Finally, children who dissociate may have trouble focusing while taking tests, which could explain why these children score lower on achievement tests.

IQ accounted for a significant amount of variance in all measures of AF except perceived school membership. Factors other than IQ, such as social support from teachers or peers and involvement in extracurricular activities, may play a larger role in children's sense of school membership. Although IQ was highly predictive of almost all outcomes, IQ and dissociation were unrelated bivariately, and dissociation predicted academic outcomes even after IQ was controlled. Dissociative symptoms were not predictive of teacher or caregiver ratings of AF, although the pattern of findings was similar to the pattern observed for other measures of AF. The caregivers and teachers included in this study might have been suboptimal reporters of AF because the children in this sample frequently changed placements and schools. Caregivers and teachers might not have known children well enough to provide accurate reports.

Future research is needed to investigate potential mechanisms underlying the relationship between dissociation and AF. Impaired executive functioning is one hypothesized mechanism that may explain this relationship. Dissociation is inversely related to executive functions, including processing speed, auditory processing, working memory, inhibition, and interference control, in school-age youth (DePrince et al., 2008, 2009). These functions are imperative for academic success. High levels of dissociation may place youth at risk for poor AF, as many of the abilities required for learning and functioning have a high likelihood of impairment. However, dissociation may be adaptive for traumatized youth, as it may help them cope with trauma symptoms (Becker-Blease, Freyd, & Pears, 2004; Freyd, 1996; Putnam, 1993). Although it is important to improve AF among maltreated and traumatized children, eliminating dissociative symptoms may not be effective unless trauma symptoms are also remediated and other coping strategies replace dissociation.

Despite the strengths of this study, a number of important factors, including other types of psychopathology, type and severity of abuse, and

placement type, were not examined. Another limitation is that despite the high-risk nature of the sample, few children (9%) self-reported dissociative symptoms in the borderline or clinical range. This is in contrast to previous studies that have found rates of dissociation ranging from 17% to 21% in maltreated samples (Hulette et al., 2011; Macfie et al., 2001; Putnam, 1996). The low level of clinical severity in dissociation scores may limit generalizability to other maltreated samples and may have attenuated the present findings. Future studies are needed to determine whether the relationships found here can be replicated using caregiver or other observer reports of youth dissociation.

Despite these limitations, dissociation offers one cogent explanation for why maltreated children struggle academically. The results of this study have important implications for schools. Exposure to violence, a potentially traumatic experience that could induce dissociation, is a problem that extends beyond abuse and neglect. Community exposure to violence, for example, is a significant public health concern. Teachers, principals, and other school personnel might benefit from comprehensive education on the prevalence and impact of childhood trauma. A better understanding of the negative consequences of exposure to violence will allow schools to provide children with the services they need to reach their full academic potential.

REFERENCES

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms & profiles*. Burlington, VT: University of Vermont.
- American Psychological Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Becker-Blease, K. A., Freyd, J. J., & Pears, K. C. (2004). Preschoolers' memory for threatening information depending on trauma history and attentional context: Implications for the development of dissociation. *Journal of Trauma & Dissociation*, 5(1), 113–131.
- Briere, J. (1996). *Trauma symptom checklist for children: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Buzi, R. S., Smith, P. B., & Weinman, M. L. (1998). Incorporating health and behavioral consequences of child abuse in prevention programs targeting female adolescents. *Patient Education and Counseling*, 33, 209–216.
- Crozier, J. C., & Barth, R. P. (2005). Cognitive and academic functioning in maltreated children. *Children & Schools*, 27(4), 196–206.
- DePrince, A. P., Weinzierl, K. M., & Combs, M. D. (2008). Stroop performance, dissociation, and trauma exposure in a community sample of children. *Journal of Trauma & Dissociation*, 9(2), 209–223.
- DePrince, A. P., Weinzierl, K. M., & Combs, M. D. (2009). Executive function performance and trauma exposure in a community sample of children. *Child Abuse & Neglect*, 33, 353–361.

- Eckenrode, J., Laird, M., & Doris, J. (1993). School performance and disciplinary problems among abused and neglected children. *Developmental Psychology, 29*, 53–62.
- Ensminger, M. E., Lamkin, R. P., & Jacobson, N. (1996). School leaving: A longitudinal perspective including neighborhood effects. *Child Development, 67*, 2400–2416.
- Freyd, J. (1996). *Betrayal trauma: The logic of forgetting child abuse*. Cambridge, MA: Harvard University Press.
- Goodenow, K. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*, 79–90.
- Hagborg, W. J. (1994). An exploration of school membership among middle- and high-school students. *Journal of Psychoeducational Assessment, 12*, 312–323.
- Hagborg, W. J. (1998). An investigation of a brief measure of school membership. *Adolescence, 33*, 461–468.
- Harter, S. (1985). *Manual for the self-perception profile for children*. Denver, CO: University of Denver.
- Hulette, A. C., Freyd, J. J., & Fisher, P. A. (2011). Dissociation in middle childhood among foster children with early maltreatment experiences. *Child Abuse & Neglect, 35*, 123–126.
- Kaufman, A. S., & Kaufman, N. L. (1990). *Kaufman Brief Intelligence Test Manual (K-BIT)*. Circle Pines, MN: American Guidance Service.
- Kendall-Tackett, K. A., & Eckenrode, J. (1996). The effects of neglect on academic achievement and disciplinary problems: A developmental perspective. *Child Abuse & Neglect, 20*, 161–169.
- Leiter, J., & Johnsen, M. C. (1997). Child maltreatment and school performance declines: An event-history analysis. *American Educational and Research Journal, 34*, 563–589.
- Macfie, J., Cicchetti, D., & Toth, S. (2001). Dissociation in maltreated versus nonmaltreated preschooler-aged children. *Child Abuse & Neglect, 25*, 1253–1267.
- Matsumoto, T., & Imamura, F. (2007). Association between childhood attention-deficit-hyperactivity symptoms and adulthood dissociation in male inmates: Preliminary report. *Psychiatry and Clinical Neurosciences, 61*, 444–446.
- Psychological Corporation. (1992). *Wechsler Individual Achievement Test screener*. San Antonio, TX: Author.
- Putnam, F. W. (1993). Dissociative disorders in children: Behavioral profiles and problems. *Child Abuse & Neglect, 17*, 39–45.
- Putnam, F. W. (1996). Child development and dissociation. *Child and Adolescent Psychiatric Clinics of North America, 5*, 285–301.
- Scarborough, A. A., & McCrae, J. S. (2010). School-age special education outcomes of infants and toddlers investigated for maltreatment. *Children and Youth Services Review, 32*, 80–88.
- Sedlak, A. J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., & Li, S. (2010). *Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress, executive summary*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.
- Taussig, H. N., Culhane, S. E., & Hettleman, D. (2007). Fostering healthy futures: An innovative preventive intervention for preadolescent youth in out-of-home care. *Child Welfare, 86*(5), 113–131.