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Children of Violence:

Characterizing Patterns of Achievement for Caring, but Busy, Educators

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Using a sample size of 162 inner-city elementary school children (grades 2-5), the relationship between self-reports of violence exposure and three years of reading and mathematics scores were examined for the purpose of characterizing children of violence for caring, but busy, educators to help them better understand the academic and personal needs of these children. Results of exploration suggest that children who were exposed to high amounts of violence may be characterized by inconsistent achievement and children who were exposed to moderate amounts of violence may be characterized by decreasing achievement. It is hoped that these characterizations will help raise awareness of children of violence and encourage educators to identify these children and intervene on their behalf.

Keywords: violence exposure, mathematics achievement, reading achievement

Introduction

With greater emphasis being placed on high-stakes testing to report student as well as teacher proficiency, and a rise in trauma exposure to elementary age children, questions arise as to how these two have an impact on each other. Teachers are being placed under a large amount of pressure to show student achievement in order to maintain job security. Teachers who normally are student focused have had to become, in many instances, test driven and are not as mindful to the needs and stresses their students face on a daily basis. This is understandable given that elementary educators are not schooled on trauma and the consequences of trauma, but on content. On the other hand, with crime rates rising, global security facing difficulties, family financial struggles increasing, and natural disasters such as wild fires, hurricanes, floods, and hurricanes uprooting once stable families across the nation, it is a wonder children feel secure enough to attend school, much less focus on testing achievement. However, achievement is still expected.

In a world in which both high-stakes testing and pervasive exposure to traumatic events exist, how can we best inform educators about trauma, how trauma affects what educators hope to achieve with their students, and what to look for as educators interact with their students?

According to the American Psychiatric Association (2000), a traumatic event is one that poses a serious threat to a person's physical and psychological well-being. A traumatic event consists of any "event that involves actual or threatened death or serious injury, or other threat to one's physical integrity" or to "a family member or other close associate" (p. 463). While events such as abuse, neglect, disasters, and the sudden loss of a significant other all meet the criteria of a trauma, so does violence exposure. When school-age children are exposed to violence, they have been shown to experience the typical symptoms associated with trauma, post-traumatic stress syndrome (PTSD; Dyson, 1990; Pynoos & Eth, 1984; Pynoos et al., 1987). Therefore, violence exposure, the focus of this paper, is also a type of trauma.

Recent statistics of school-age exposure to the trauma of violence tell us that children as young as five years of age have been exposed to violence (Taylor, Zuckerman, Harik, & Graves, 1994) and that violence exposure is no longer limited to inner-city environments alone (O'Keefe, 1997). Whether experienced first-hand or through the lives of others around them, this exposure can occur as muggings, shootings, stabbings, and robberies. In addition, exposure to the trauma of violence can occur when seeing a dead body and witnessing someone being killed. Numerous reports provide evidence of exposure by school-age children to such events and attest to its prevalence in the lives of school-aged children (Kilpatrick & Saunders 1997; Richters & Martinez, 1993a; Taylor, Zuckerman, Harik, & Graves, 1994; Uehara, Chalmers, Jenkins, & Shakoor, 1996).

Perspectives and Theoretical Framework

There are no trauma theories that specifically address school effects (i.e., achievement or school-related behaviors). However, there are some theories which can be used to understand how trauma may negatively impact school-age children. For example, Maslow's Hierarchy posits that the need to feel safe takes precedence over the need to achieve. Thus, when children either experience or witness a violent act, or learn of a violent act committed on a significant other, they do not feel safe. Their sense of security has been suddenly interrupted so consequently, they may not achieve to their fullest academic potential in school despite their cognitive ability. Also, Conte and Schuerman (1987) posit that exposure to traumatic events inhibits cognitive functioning. When children are exposed to a traumatic event, energy needed for school tasks is diverted to suppressing the event. As such, children who have experienced a trauma may focus their energy on suppressing thoughts of the trauma rather than on succeeding at school-related tasks (Shanok, Welton, & Lapidus, 1989). Effects of the trauma of violence on the lives of school-age children and its damaging impact on academic success have been documented in the psychological literature and more recently in the educational literature.

School Effects

Although few in number (Dyregrove, 2004), there are trauma studies that demonstrate a negative effect on some school-related behaviors and some aspects of student achievement. For instance, violence exposure has been associated with each of the following:

- more attention problems (Pynoos et al., 1987),
- lower cognitive functioning (Pynoos et al., 1987),

- more classroom behavioral problems (Dyson, 1990; Martinez & Richters, 1993; O'Keefe, 1997; Schwab-Stone et al., 1999),
- decreases in school attendance (Hurt, Malmud, Brodsky, & Giannetta, 2001),
- more grade repeats (Lipschitz, Rasmusson, Anyan, Cromwell, & Southwick, 2000; Schwab-Stone et al., 1995),
- lower overall achievement as measured by school grades (Bowen & Bowen, 1999; Hurt et al., 2001),
- lower reading achievement as measured by standardized tests (Author, 2004; Delaney-Black et al., 2002; Nettles, Mucherah, & Jones, 2000), and
- lower mathematics achievement as measured by standardized test scores (Nettles et al., 2000).

Although other studies have reported no significant, adverse achievement effects (Attar, Guerra, & Tolan, 1994; Overstreet & Braun, 1999; Rosenthal & Wilson, 2003), only "marginally" significant, adverse achievement effects (Horn Ratner et al., 2006; Milam et al., 2010), or significant, adverse effects for one subject area but not another (Author, 2004), an examination of these studies seems to suggest that the trauma of violence has a negative impact on school-related outcomes and *may* adversely affect achievement.

Psychological Effects

In contrast, research on the psychological effects of trauma is quite conclusive. A preponderance of the trauma research has linked traumatic events to a range of negative psychological consequences. For instance, violence exposure has been associated with each of the following:

- post-traumatic stress syndrome (McCloskey & Walker, 2000; Overstreet, Dempsey, Graham, & Moely, 1999; Scheering, Zeanah, Drell, & Larrieu, 1997; Slovak, 2002),
- anxiety (American Psychiatric Association, 2000; Martinez & Richters, 1993),
- high levels of fearfulness (American Psychiatric Association, 2000; Garbarino, Dubrow, Kostelny, & Pardo, 1992),
- social problems (Gorman-Smith & Tolan, 1998; Pynoos, 1994),
- delinquency (Dyson, 1990; Pynoos & Eth, 1984),
- aggression (Cicchetti & Lynch, 1993; Garbarino, 1995),
- depression (Gorman-Smith & Tolan, 1998; Martinez & Richters, 1993),
- thought problems (Pynoos et al., 1987), and
- somatic complaints (Pynoos & Eth, 1984).
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Objectives of the Current Study

In today's busy world, the pervasiveness and potential consequences of childhood exposure to the trauma of violence compel educators, whose expertise lies in academic content instead of trauma, to ask researchers for insights, short-cuts – some patterns of achievement perhaps - that could be used to initially identify children exposed to the trauma of violence. Once identified, educators could then recommend these children for further examination by the school's mental health professional, and ultimately help to minimize the negative effects of traumatic exposure.

To this end, based on data gathered on mathematics and reading achievement, this paper was designed to meet three objectives: (1) to raise awareness of the trauma of violence and its impact on school achievement, (2) to provide educators with characterizations of patterns of achievement for children exposed to the trauma of violence, and (3) to encourage the use of this information to identify these children and intervene on their behalf.

Methods

This study was a secondary analysis of an extensive data set provided by the Metropolitan Area Child Study (MACS) and all participants, measures, and assessment procedures used in this study were those employed by MACS. The MACS project is a large scale, longitudinal study whose purpose was to promote the development of social skills as a way of curbing youth violence (Guerra, Eron, Huesmann, Tolan, and Van Acker, 1990).

Participants

The initial sample for this study consisted of 880 elementary school students, drawn from eight inner-city elementary schools located within the mid-west region of the United States. Of these 880 children, 162 of them met the criteria for inclusion in this study.

The criteria for inclusion were the following: 1) traumatic exposure data for Year I and, 2) standardized achievement scores for three consecutive school terms (Year I, Year II, and Year III). This group was further reduced by excluding those participants who were officially diagnosed with a special education status due to inadequate cognitive functioning (IEP indication of an IQ below 70).

Of these 162 students, 65 (40%) were second graders, 90 (56%) were third graders, and 7 (4%) were fifth graders. Eighty-five of these children (52%) were male and 77 (48%) were female. In addition, 31 children (19%) were African-American, 54 (33%) were Caucasian, 73 (45%) were Hispanic, and 4 children (1%) were Other. Lastly, socio-economic status (SES) was measured by the free and reduced lunch program: 62 of these students (38%) were from low SES families (those receiving free lunch), 19 (12%) were from middle SES families (those receiving reduced lunch), 55 (34%) were from high SES families (those ineligible for free or reduced lunch), and 26 (16%) were missing SES data.

Instruments

This study used two instruments: the *Trauma of Violence Exposure Checklist* and standardized achievement tests for reading and mathematics.

The Trauma of Violence Exposure Checklist. The *Trauma of Violence Exposure Checklist* was used to measure the occurrence of a child's exposure to traumatic events. This scale was a subset of a previous self-report questionnaire, the Social Stress Measure (Tolan, Miller, & Thomas, 1988; see Appendix A). Of the 15 items on this social stress questionnaire, seven met the criterion of a traumatic event (i.e., serious threat to a child's well-being). Of these seven items, two measured the loss of a significant other, such as a parent, guardian, family member, or family friend, and five measured exposure to violence (i.e., witnessing violence, knowledge of someone who was victimized, behavioral change prompted by fear of violence; see Table 1). For the purposes of this research, the five violence items were grouped to form a subscale labeled the *Trauma of Violence Exposure Checklist* (see Table 1).

Table 1.

Traumatic Events Exposures Checklist
DIRECTIONS: Answer the following questions by circling "YES" or "NO".

1. During the last year, has someone else you know, other than a member of your family, gotten beaten, attacked, or really hurt by others? YES NO
2. During the last year, have you seen anyone beaten, shot, or really hurt by someone? YES NO
3. During the last year, have you seen, or been around, people shooting guns? YES NO
4. During the last year, have you been afraid to go outside and play, or have your parents made you stay inside because of gangs or drugs in your neighborhood? YES NO
5. During the last year, have you had to hide someplace because of shootings in your neighborhood? YES NO
6. During the last year, did a family member die? YES NO
7. During the last year, did another close relative or friend die? YES NO

Students completed the scale by indicating whether or not they had experienced any of the traumatic events listed during Year I. By summing the total number of "yes" responses, each child received a total score for the violence items.

Because children's scores for the *Trauma of Violence Exposure Checklist* are a sum of the number of "yes" responses to items, the number and type of items make traditional estimates of internal consistency inappropriate. Reliability of responses was supported by standardizing procedures for administration: offering administration in Spanish for Spanish-speaking students and using "low-inference" items (e.g., during the last year have you been around people shooting guns?).

In addition, students were also classified into research groups with theoretically similar amounts of traumatic exposure (Garbarino, 1994). Group 1, the non-exposure, consisted of those students who reported no violence exposure; group 2 consisted of those students who reported moderate amounts of violence exposure (either one or two events); and group 3 consisted of those students who reported high amounts of exposure (three, four, or five events). Table 2 contains information regarding gender, ethnicity, grade level, and social economic status (SES) for each research group.

Table 2.
Demographic Data of Sample

	Loss			Violence			
Research Groups	1	2	Total	1	2	3	Total

N =	72	90	162	49	70	43	162
GENDER							
Females	49%	47%	48%	45%	54%	40%	48%
Males	51%	53%	52%	55%	46%	60%	52%
ETHNICITY							
African-Americans	15%	22%	19%	14%	23%	19%	19%
Caucasians	36%	31%	33%	59%	27%	14%	33%
Hispanics	46%	44%	45%	22%	47%	67%	45%
Other	3%	2%	2%	4%	3%	0%	2%
GRADE							
2	44%	37%	40%	43%	37%	42%	40%
3	50%	60%	56%	53%	59%	53%	56%
5	6%	3%	4%	4%	4%	5%	4%
SES							
Low	33%	42%	38%	16%	44%	53%	38%
Middle	8%	14%	12%	4%	17%	12%	12%
High	38%	31%	34%	57%	26%	21%	34%
Missing	21%	12$	16%	22%	13%	14%	16%

Note. Based on student reports, students were classified into groups of theoretically similar amounts of traumatic exposure: 1 = Control Group; 2 = Moderately Exposed Group (either 1 or 2 reports of exposure); and 3 = Highly Exposed Group (3, 4, or 5 reports of exposure).

Standardized Achievement Tests. Mindful that this sample was drawn from eight inner-city elementary schools, each with its own choice of testing instrument, the second measure used in this study was one of three standardized achievement tests: the Iowa Test of Basic Skills (ITBS), the California Achievement Tests (CAT), or La Prueba de Riverside en Espanol (La Prueba). According to Raju (1992), Airasian (1989), and Chicago Public Schools (1998), all three standardized tests appear to be valid and reliable measures of academic achievement. Moreover, if all tests are standardized on a national level and percentiles are formed, then it stands to reason that these tests are equivalent in nature and sufficient for the purposes of this study.

Data Collection Procedures

During the Spring of Year I, traumatic exposure data were collected by MACS' personnel who were placed into teams and extensively trained. In Spanish-speaking classrooms, data collection teams always included a bilingual (Spanish and English) member. At the end of each school year, achievement data were obtained from classroom teachers.

Statistical Analysis and Results

Tests of Significance

Three tests of significance were performed. First, the general linear model (GLM) analysis test was performed to explore the relationship between the trauma of violence and general achievement. Second, One-way Analyses were conducted exploring the relationship

between the trauma of violence and reading and mathematics among research groups – across group effects. Third, t-tests were performed exploring the relationship between the trauma of violence and reading and mathematics for each research group – within group effects.

Results

Demographics. Demographic information for this sample was examined. Factorial analyses of variance were conducted with loss and violence as independent variables and achievement as the dependent variable. Tukey post hoc comparison tests were performed exploring any main effects or interactions. Only the statistically significant demographic variables are discussed in detail.

For children reporting loss, none of the demographic variables were significant. However, for children reporting violence exposure, main effects were revealed for ethnicity, $F(4, 158) = 8.25, p < 0.01$, and for family income, $F(2, 134) = 10.95, p < 0.01$ (see Table 3).

Table 3.
Demographic Variables

	Loss			Violence		
	df	F	p	df	F	p
Gender	1	.06	.80	1	.20	.65
Ethnicity	4	.33	.85	4	8.25	.00*
Grade	2	.88	.41	2	.01	.98
SES	2	1.12	.32	2	10.95	.00*

Note. n = 162
* $p \leq 0.05$

Post hoc comparisons indicated the following: First, Hispanic (85%) and African American (77%) children reported significantly more exposure to violence than their Caucasian (46%) counterparts. No significant difference between Hispanic and African American children was revealed (see Table 4).

Table 4.
Tukey comparison between Ethnicity and Violence

	African American	Asian	White	Hispanic	Other
African American	1.00				
Asian	1.00	1.00			
White	.031*	.919	1.00		
Hispanic	.600	.988	0.00*	1.00	
Other	.246	.600	.771	.089	1.00

Note. n = 162
* p ≤0.05

Second, children from low (87%) and middle (89%) income families reported significantly more exposure to violence than children from high (49%) income families. No significant difference between the children from low and middle income families was revealed (see Table 5).

Table 5.
Tukey comparison between Social Economic Status and Violence

	Low	Middle	High
Low	1.00		
Middle	0.889	1.00	
High	0.000*	.019	1.00

Note. n = 162
* p ≤0.05

Relationship between traumatic events and achievement. Results of GLM analysis revealed a significant, adverse relationship between violence and achievement over time, $F(4, 312) = 2.71, p = 0.03$ (see Table 6). Post hoc results revealed a significant relationship with reading achievement. Thus, violence exposure was associated with lower reading achievement. No other significant relationships were indicated.

Table 6.

Results of Analyses Examining the Relationship between Traumatic Exposure and Academic Achievement

Source	df	F	
Between subjects			
Loss	1	0.740	
Violence	2	1.851	
Loss * Violence	2	5.000	
Error	156	(2442.488)	
Within subjects			
Achievement	1	3.787	0.053
Achievement * Loss	1	0.749	0.388
Achievement * Violence	2	0.019	0.981
Achievement * Loss * Violence	2	0.597	0.552
Error	156	(474.321)	

Time	2	2.484	0.085
Time * Loss	2	0.440	0.644
Time * Violence	4	2.717*	0.030*
Time * Loss * Violence	4	1.236	0.296
Error	312	(402.572)	
Achievement * Time	2	2.779	0.064
Achievement * Time * Loss	2	0.098	0.907
Achievement * Time * Violence	4	0.506	0.731
Achievement * Time * Loss * Violence	4	1.260	0.286
Error	312	(166.493)	

Note. Values enclosed in parentheses represent mean square errors.
n = 162
* p< 0.05

Relationship between trauma and achievement for research groups – Across group effects. Results of the One-way Analyses revealed one statistical difference. In Year III, the average reading scores of the moderate exposure group (M = 44) were significantly lower than the average reading scores of the non-exposure group (M = 56), $F(2, 160) = 3.27$, $p < .05$ (see Table 7).

Table 7.
Across Group Effects

	Control M (SD)	Moderate Exposure M (SD)	High Exposure M (SD)	F	P
MATH Year 1	55.3 (26.3)	53.5 (26.3)	52.3 (28.5)	0.14	0.87
MATH Year 2	59.3 (26.7)	53.3 (25.8)	61.8 (25.4)	1.66	0.19
MATH Year 3	58.7 (26.1)	49.7 (28.0)	58.5 (27.9)	2.09	0.13
Read Year 1	55.5 (29.5)	52.7 (24.4)	49.8 (29.0)	0.51	0.60
Read Year 2	55.5 (23.9)	52.2 (23.8)	57.5 (24.1)	.071	0.49
Read Year 3	55.7 (25.4)	43.6 (25.8)	51.3 (27.7)	3.27	0.04*

Note. *significant $\leq$0.05

Relationship between trauma and achievement for each research group – Within group effects. Results of *t*-tests revealed significant relationships for both exposure groups (see Table 8). For the moderate exposure group, there were significant differences found for reading achievement: between Years I and III, $t(70) = 2.97$, $p = .00$, and between Years II and III, $t(70) = 3.46$, $p = .00$. Thus, for the moderate violence group, violence exposure had a significant, adverse effect on reading scores between Years I and III (M = 56 and 44 respectively) and Years II and III (M = 55 and 44 respectively).

Table 8.
Within Group Differences

		Reading			Mathematics		
		M (SD)	t	p	M (SD)	t	p
Control (N= 49)	Year 1	55.59 (29.58)	$t_{(48)}$= .02	p=.99	55.27 (26.35)	$t_{(48)}$= -1.22	p=.23
	Year 2	55.53 (23.98)			59.33 (26.71)		
	Year 1	55.59 (29.58)	$t_{(48)}$= -.06	p= .95	55.27 (29.58)	$t_{(48)}$= -1.07	p= .29
	Year 3	55.78 (25.46)			58.71 (26.10)		
	Year 2	55.53(23.98)	$t_{(48)}$= -.08	p= .93	59.33 (26.71)	$t_{(48)}$= .22	p= .82
	Year 3	55.78(25.46)			58.71 (26.10)		
Moderate Exposure (N=71)	Year 1	55.76 (24.24)	$t_{(70)}$= .22	p= .83	53.52 (26.30)	$t_{(70)}$= .09	p= .93
	Year 2	55.25 (23.81)			53.27 (25.77)		
	Year 1	55.76 (24.24)	$t_{(70)}$= 2.97	p= .00**	53.52 (26.30)	$t_{(70)}$= 1.19	p= .24
	Year 3	43.65 (25.86)			49.73 (27.97)		
	Year 2	55.25 (23.81)	$t_{(70)}$= 3.46	p= .00**	53.27 (25.77)	$t_{(70)}$= 1.49	p= .14
	Year 3	43.65 (25.86)			49.73 (27.97)		
High Exposure (N=43)	Year 1	49.84 (29.06)	$t_{(42)}$= -1.84	p= .07	52.28 (28.51)	$t_{(42)}$= -2.09	p= .04*
	Year 2	57.58 (24.17)			61.84 (25.35)		
	Year 1	49.84 (29.06)	$t_{(42)}$= -.34	p= .73	52.28 (28.51)	$t_{(42)}$= -1.33	p= .19
	Year 3	51.40 (27.73)			58.47 (27.91)		
	Year 2	57.58 (24.17)	$t_{(42)}$= 2.29	p= .03*	61.84 (25.35)	$t_{(42)}$= .99	p= .33
	Year 3	51.40 (27.73)			58.47 (27.91)		

Note. * significant $p < .05$
** significant $p < .01$

For the high exposure group, significant differences were found for reading and mathematics achievement. Reading achievement differences were significant between Years II and III, $t(42) = 2.29$, $p = .03$. Mathematics achievement differences were significant between Years I and II, $t(42) = -2.09$, $p = .04$. Specifically, for the high violence group, violence exposure was associated with a significant decrease in reading achievement between Years II and III (M = 58 and 51 respectively) and with a significant increase in mathematics achievement between Year I and II (M = 52 and 62 respectively).

Relevance and Limitations of Study

Results of this study suggest that the trauma of violence has an adverse relationship to reading achievement. Other studies support this finding (Author, 2008; Delaney-Black et al., 2006; Milam, Furr-Holden, & Leaf, 2010; Nettles, Mucherah, & Jones, 2000).

Results also suggest that the trauma of violence has a positive relationship to mathematics achievement for the high exposure group – one year after the report of a traumatic event. However, this finding is out of the norm. To date, few studies have focused specifically on mathematics achievement. Of these, effects on mathematics are inconsistent but none report a significant increase. For example, Nettles and colleagues (2000) found an adverse effect with mathematics and others found "marginally" significant, adverse effects with mathematics (Horn Ratner et al., 2006; Milam et al., 2010). Instead, studies focus on achievement (Attar, Guerra, & Tolan, 1994; Henrich, Schwab-Stone, Fanti, Jones, & Ruchkin, 2004; Thompson & Massat, 2005), reporting either no effect on achievement or a significant, adverse effect on achievement.

Results also reveal that Hispanic (85%) and African American (77%) children report significantly more exposure to violence than Caucasians (46%) and that a majority of children from low (87%) and middle (89%) income families report significantly more exposure to violence than children from high (49%) income families. These findings are consistent with other studies (Milam et al., 2010; O'Keefe, 1997), suggesting that violence affects all groups but especially racial minorities and the poor.

Thus, the pervasiveness and potential adverse effects of the trauma of violence compel educators in a busy world to ask researchers for short cuts – characterizations of patterns of achievement perhaps - insights - that could be used to initially identify these children. Once identified, educators could then recommend these children for further examination by the school counselor, and if needed, help to minimize the negative effects of traumatic exposure. This would also better inform the teachers in helping their students negotiate academic success while dealing with post-trauma issues.

To this end, we offer the following patterns and characterizations of achievement - demonstrated by the exposure groups in this study - for consideration. Given that all results are not consistent with current literature, we offer these tentatively.

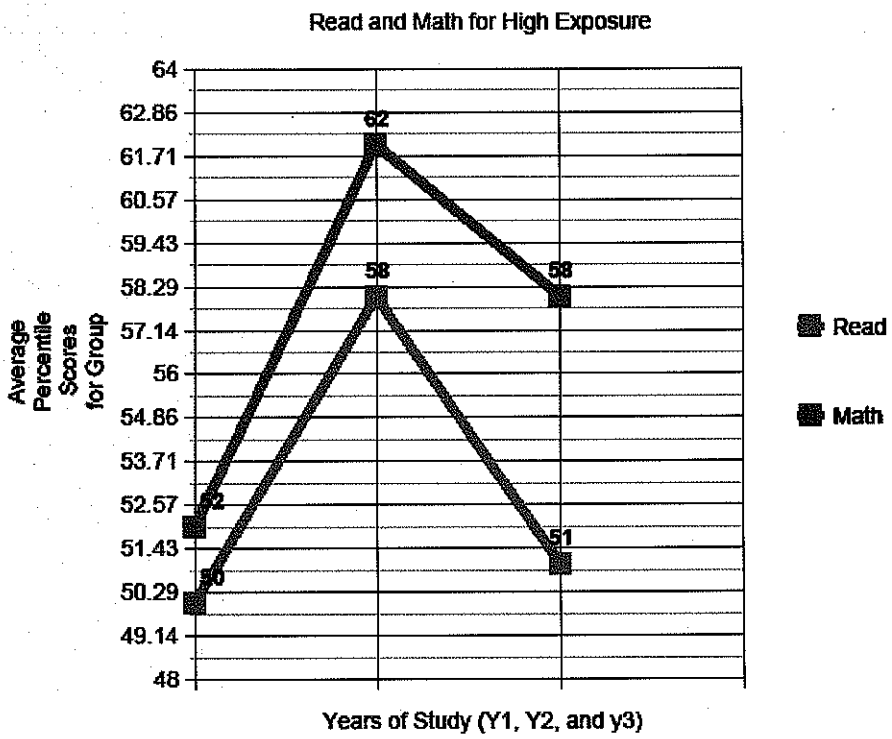
High Exposure Group

For the high exposure group, the pattern of achievement for reading is up 8, then down 7. Similarly, the pattern of achievement for mathematics is up 10, then down 4. Thus, for the high

exposure group, whether reading or mathematics, the pattern of achievement is up many, then down many. This pattern of achievement could be characterized as up and down, or as inconsistent (see Figure 1).

Figure 1

Patterns of Achievement for High Exposure Group



Students exhibiting this pattern of achievement may be reflecting the inconsistency in their lives due to high levels of violence exposure. This pattern may also result from teacher and school efforts at assisting these students.

In other words, perhaps these students exhibit behaviors which raise several red flags with their individual teachers at school (achievement and behavioral problems). As such, these students may be seen as needing some assistance. The teacher and school then provide assistance regarding the red flag behaviors, and achievement temporarily rises. However, because the red flag behaviors are not seen as manifestations of an underlying traumatic exposure, the traumatic event is not addressed, so the negative behaviors do not decrease. The

teacher and/or school gives up on these students, and their achievement declines; the efforts to help result in Band-Aids rather than real solutions.

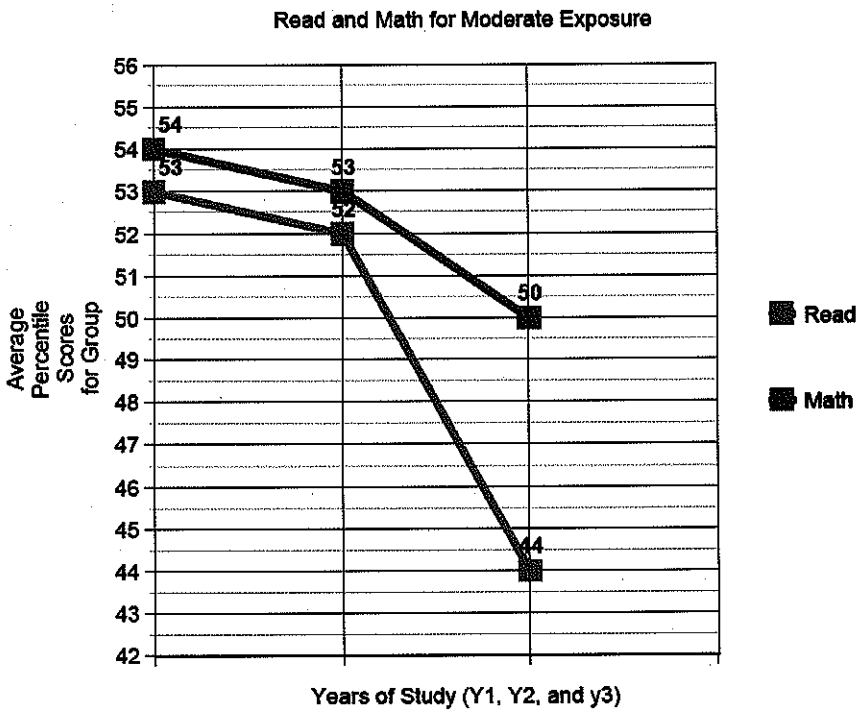
These students are like squeaking wheels; they are always in need.

Moderate Exposure Group

For the moderate exposure group, the pattern of achievement for reading is down one, then down 8. Similarly, the pattern of achievement for mathematics is down one, then down 3. Thus, for the moderate exposure group, whether reading or mathematics, the pattern of achievement is down, then down some more. This pattern of achievement could be characterized as downward (see Figure 2).

Figure 2

Patterns of Achievement for Moderate Exposure Group



Perhaps these are the students who are silently falling through the cracks, because in contrast to the numerous red flag behaviors raised by the high exposure children, the needs of these children may not be perceived as serious. As such, the needs of these students may go unaddressed and they may become the forgotten children of violence.

In a world in which both high-stakes testing and pervasive exposure to traumatic events exist, educators need to keep the possibility of traumatic events in mind as they interact with and make decisions regarding their students. To this end, maybe characterizations of achievement patterns based on the amount of violence exposure will help educators identify children of violence and intervene on their behalf.

The Bottom-line

One might ask: "High exposure group was up 8 down 7 – pattern is up and down. Low exposure group was down one then down 8 – pattern is downward. How is that useful for educators?"

Because this study found that each research group showed similarities in the pattern of achievement for two subject areas, we argue that perhaps there is something about the amount of violence exposure – irrespective of subject area – that could be used to help educators identify children of violence before adverse affects become more complex. To this end, we tentatively offer characterizations of these similar achievement patterns for each research group. It is hoped that in the event that educators observe these patterns of achievement, they will respond by referring these children for further examination by the school counselor, and if needed, help to minimize the negative effects of traumatic exposure.

Thus, the data in this study suggest that both exposure groups are in academic danger. Each group manifests the danger in different patterns of achievement.

Limitations

This study is not without limitations, reflecting both the complexity of these issues and the nature of research involving human subjects. First, trauma data were collected for a one-year period. In addition, only one type of trauma data, community violence exposure, was collected. Moreover, this trauma scale consisted solely of five questions. Also, this study did not ask participants how many times they experienced these traumatic events nor did the study explore any supports which may mitigate the effects of trauma such as family or church, as these external support systems are beyond the control of a child's educator. Thus the findings of this study need to be interpreted with these limitations in mind.

Conclusion

Unfortunately exposure to violent events for elementary children will likely not decrease in the near future. Also unfortunately, the pressure for educators to increase academic success, with proof being in high-stakes testing, will likely increase. With these two factors, it is more important than always for educators to be ever vigilant and mindful of the children whom they serve. With the help of research and insights from trauma professionals, educators can be better prepared to spot the warning signs of academic failure in children who are experiencing post-trauma issues.

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