

To Play, Learn, and Think

Understanding and Mitigating the Effects of Exposure to Violent Events on the Cognitive Capacity of Children and Adolescents

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Research on the effects of exposure to real-life violent events point to resulting difficulties in cognitive capacity. This creates difficulties for schoolchildren in thinking and learning. Often their “trauma” is then compounded by failure at school and inability to solve problems in their lives. Children who live in ongoing violence cannot wait until better times make it possible to reduce symptoms of posttraumatic stress disorder and ensure safety. Instead, psychodynamic programs can assist them to improve their capacity for symbol formation while they continue to live in an uncertain world. This article gives an example of such a program in New York City and points the way toward future research.

Understanding the Problem

IN 1991, THE LEADING CAUSES OF DEATH FOR NEW YORK CITY CHILDREN aged 14 to 17 were homicide, suicide, and accidents, in that order. As director of training at the Persons in Need of Supervision (PINS) diversion program in New York, I led an informal study of the experience of children under 16 entering the family court system for committing violent acts at home. Our results indicated that these children had experienced early

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traumatic loss and been exposed to extreme violence. That situation made New York's family- and youth-serving agencies painfully aware that the study of trauma loss and exposure to violence was not only a problem that concerned veterans abroad, but one that was directly related to the youngsters they served here in New York and in other major cities. This resulted in the implementation of a program consisting of short-term, insight-oriented assessment aimed at readiness followed by a complex, multifaceted, long-term, community-based treatment intervention.

In 1991, Garbarino, Kostelney, and Dubrow (1991) illustrated the ways that children in city neighborhoods in which community and family violence occur frequently are likely to have the same sorts of symptoms that children in war zones have. Carl Bell (Bell and Jenkins, 1991) did a specific study of African American youth in Chicago confirming this point of view. That same year, Macksoud, Aber, Deregor, and Raundelen developed the Child Behavior Inventory, the instrument that is used around the world to measure children's reactions after violent events.

These measurements essentially supported the observations of Hovens, Falger, Op den Veld, and Shouten from a longitudinal 1992 study demonstrating that the development of symptoms was a matter of the severity of the violence to which one had been exposed and the length of time one had actually been exposed to it. In their study, for instance, all of those who spent 18 months or more in a death camp were more symptomatic than those who had shorter and less brutal captivity, regardless of other factors.

The study of resilience, pioneered by Anthony and Cohler (1987) among others, showed that a variety of protective factors for children in combination could mitigate many of these effects, the most important of these being a secure relationship to a caring adult over time, and despite all odds. However it appeared that many children in our cities, as well as those in many long and intractable war situations, were presenting to us with problems precisely because these factors were absent. Therefore, programmatic intervention must keep these factors in mind and seek to replicate them in a meaningful way wherever possible. That means that short-term programs with young staff who come and go would not be effective, and that whenever possible constant objects such as existing caregivers, teachers and parents should be strengthened in their ability to help.

In 1993, Laub and Auerhahn noted the effects of trauma on cognition. These effects were discussed in detail by van der Kolk et al. (1996), who noted that neurobiological structures are altered after exposure to extreme violence through the mechanism of cortical plasticity. In 1998, however, at a federal conference addressing the effects of violence on children around

the world, James Garbarino, lead author of the original study (Garbarino et al., 1991) on war trauma symptoms in U.S. city children cited earlier, defined trauma, including exposure to violent events, as an “event from which it is impossible to recover” (Garbarino, 1998).

When I first started looking at trauma symptoms in children and adolescents, I was struck by the degree to which the literature was phenomenological; that is, a great deal was written about the “what” of trauma, but little about the “why.” It was assumed, logically, that if sufficiently violent things happened to people, they would respond adversely, as the Hovens et al. (1992) article cited earlier indicates. Furthermore, both treatment modalities and measurement tools have been developed to address a list of specific adverse symptoms that had been largely documented in the West or among Western-educated subjects without taking class and culture into account.

In addition, the work was based on a concept of “posttraumatic stress” that implied the subject was now in a position of safety and that any current distress was imaginary or a response to something in the past. However, many children the world over live in conditions in which the “trauma” that afflicted them was not a single event but a series of events that happened over time, and in fact continue happening because neither urban centers of poverty nor refugee camps can be considered safe places (see Becker, 1995).

Finally, treatment programs developed after the development of the Child Behavior Inventory, focused on reduction of some of these symptoms in pretests and posttests, without regard for what teachers, families, and children reported as their own greatest concern regarding children’s functioning. If trauma, in intractable situations, was forever, might it not be possible to mitigate its most deleterious effects in the midst of violence and war? In order to discover whether it was possible to mitigate some of the effects of violence, in the midst of violence itself, I took the following three steps:

1. I unpacked this phenomenological approach in order to understand the specific reasons that the symptoms appeared.
2. Then I developed a methodological approach to document the culture-specific symptoms that occurred in different times and places, and the culture- and place-specific coping mechanisms that families and communities could marshal to address them. (This tool is called the PET—the Participatory Evaluation Tool. See Bragin, 2002, 2005.)
3. Finally, I used the following:

- a. What teachers, parents, and children found most debilitating among the symptoms.
- b. What we could do to achieve better outcomes in the areas that these teachers, parents, and children had identified as problematic.

Failures of Symbol Formation: Unpacking the Symptoms

I began my work by accepting the psychodynamic understanding of psychosocial symptoms as compromise formations, that is, the psyche's attempts to guard against knowing that which it is unbearable to know (Freud, 1916). Accepting the idea that people are born with a certain amount of innate aggression that assists them in the tasks necessary to survive the symptoms began to look comprehensible to me. According to this theoretical model, raw aggression is moderated through the loving attention of caregivers to infants' needs as they grow up. Infant research tells us that people begin life in a world in which outside cannot be distinguished from inside, in which one's own devouring wishes cannot be distinguished from the devouring pains of hunger or discomfort of wet. Over time and through loving care, the outside world acquires meaning; words are formed (*clock*, *pot*, etc.). This process, known as symbol formation, is the way in which the internal world is made useful to the external one. It begins through children's play (Klein, 1927, 1928, 1930; Fonagy et al., 2002; Bragin, 2003). Any nursery school teacher will tell us that as children grow up, they play out violent fantasies that allow them to reject "badness" and "mean-spiritedness" and rescue loved ones from terrible things and that in this process they conquer their own violent urges and propensities (Winnicott, 1939, 1956, 1960, 1969).

One of the most terrible things about acts of extreme violence is the way that they take scenes that belong to the realm of dream and fantasy and make them literal. These events then become enactments of our worst nightmares or force us to be actors in the nightmares of others (Bragin, 2003, 2004).

I proposed therefore that repeated and enduring exposure to literal enactments of violent fantasy is a factor that causes regression to a state prior to symbol formation because this regression is a necessary protection from knowledge of the violent infantile propensities that exist within us—the very propensities that have been repressed over time through the care of loved and loving objects whose "good-enough" constancy has allowed us to use the world over time (Bragin, 2005b).

What Were the Most Debilitating Problems?

Here in New York City, in the family court and from in-school programs for young children, we took a look at what parents were coming to complain about, what teachers reported, and what children found most frustrating. We acquired this information through gross measures; that is, we asked the families who came to us voluntarily or through referral from school. We then screened out those with neurological impairment (special education history) or other illness or drug addiction history in the child or the parents. The issues were as follows:

- Repetitive play in young children that reenacts violence over and over.
- Violent enactment behavior (breaking things, fighting, hitting people close to them, criminal activity) in older children and adolescents.
- Difficulty thinking complete thoughts and expressing oneself verbally.
- School failure, attributed to difficulty concentrating on school subjects.

Although many symptoms may be uncomfortable, it is these that interfere most severely with children's progress to a successful adulthood. Both children and parents in any number of situations around the world reported being acutely aware of this.

Using Psychoanalytic Theory to Help

If failure of symbol formation was the cause of children's inability to play, learn, and think, then research on the development of the capacity for symbol formation in people exposed to extreme violence would be an essential part of program design to mitigate these effects.

Research on the capacity for symbol formation, the capacity to think and to think about thinking has been ongoing by Fonagy, Target, and their colleagues at University College London. Rather than the term *symbol formation*, they use *mentalization* or *reflective function*. In 1999, they showed that violent acting-out behavior could be seen as a failure of symbol formation or mentalization. Adolescents and young adults enacted and reenacted violent situations by acting violently, just as smaller children enacted those situations in repetitive play. The reason was that because they were unable to think about the events and process them, they simply repeated them, often with the hope of mastery. (This is sometimes referred to as *identification with*

the aggressor however, I substituted my own finding regarding a failure of symbol formation, leading to concrete enactment as way to tell the tale. I found this formulation more helpful in looking at program design.)

Fonagy and Target (1999) found that in analytically based treatment, *with a consistent and enduring object*, they could help to develop the capacity to mentalize and that this capacity to mentalize was able to mitigate violent symptomatic response. To mitigate these effects, it was necessary to work in the treatment process and to build the capacity for acceptance of the violence within to assist in the resymbolization of the violence that has been committed.

Implications for Program Design

Since 1998, I have had two grants to implement programs based on this theoretical approach. The first, from the WT Grant Foundation, addressed the problem of recidivism in a selected group of teenage violent offenders returning from the juvenile justice system. Its success led to its adoption as a model reintegration program by the New York State Division for Youth (see Bragin, 2004).

Following the events of September 11, 2001, I received an additional \$1.4 million grant from the Federal Emergency Management Agency (FEMA) to develop a program for children in New York City schools. That program ended in December 2003, and the preliminary results are discussed later. Both programs attempted to address failures of symbol formation. In utilizing this approach for children who were failing to learn in New York City schools, we found that four conditions were required:

- Consistent attendance by the same therapists, whether professional, community paraprofessional, or teacher, is the first requirement. This is important so that the child experiences the therapist as not destroyed by the aggressive impulses, thoughts, and knowledge of the child.
- Second, a holding environment must be created such that the aggression and despair experienced by staff members—in part due to the troubles of the children, in part due to their own difficult lives, and in part due to the affect of social disdain for their labor (low wages, little material support, being blamed for the failure of their charges)—can be contained. This must be done in the context of a respectful collegial relationship, while the workers remain consistently cognizant of their container role.

- Children must actively participate in activities that allow them to demonstrate the capacity to do good things and therefore master the experience of irreparable badness.
- The capacity to create symbolic representation first through activity, then through drawing or acting, and finally through speaking and writing must be encouraged.

Measurement: The Challenge

A serious problem in moving this work forward is the current lack of tools specifically designed to demonstrate quantitative progress in the categories of concern most seriously experienced by teachers, parents and children: the capacity to play, learn, and think. With the encouragement of the United States Institute for Peace, I am beginning a process of developing measurement tools applicable to large populations, across culture and class, that will adequately reflect these concerns in a measurable way. I hope this will enable three important changes in our work with children exposed to violence:

1. It will allow us to measure the success of work with children that is not based on symptom reduction alone.
2. Good results in such measurement would result in the funding of programs that address the issues that may underlie these trauma symptoms.
3. Such results would enable more culturally competent program design.

The Program for Underserved Schools

The program for underserved schools was initiated in May 2002 with a grant from FEMA. It was founded to meet needs highlighted in the Columbia University Mailman School of Public Health in collaboration with Yale University's Center for Children Exposed to Violence and the New York University Child Study Center study of the effects of the events of September 11, 2001, on schoolchildren. This study indicated that of the 64 percent of children who did not live near Ground Zero and the 51 percent of those who did who had suffered from previous trauma (including incarceration of parents after family violence including murder, placement in foster care due to severe abuse, or exposure to community violence that included the murder of a

close relative), symptomatic responses to their chronic trauma had been exacerbated by the attacks and persisted after the attacks.

What Were the Effects of the Aftermath of September 11, 2001, on Underserved Communities?

Since September 11, 2001, some school communities faced enduring hardships that were not always widely known or understood. In addition to death and loss of loved ones were the following aftereffects:

- Reliving of violent incidents from the past—family and community violence.
- Reliving of violent incidents from the past—remembered violence from countries of emigration.
- Racial and ethnic targeting or profiling, especially of those from the Middle East and South and Central Asia.
- Family members in the military now in harm's way. (It was then a little known fact that African Americans and Latinos are disproportionately represented in those volunteering for military service in New York today.)
- Loss of jobs; small family businesses closed or in financial difficulty.
- Exposure to extreme violence.

How Do These Problems Particularly Affect Underserved School Communities?

Teachers are called on to explain the world to their students, contain their anxieties in the classroom, and raise their level of performance. Because of their socioeconomic status, it was widely believed that the events of September 11, 2001, had not affected them or their students even though they had watched the attacks through classroom windows. Yet the students continue to have difficulty. They continue to struggle with the effects of social and interpersonal violence all around them and of terrible things that have happened in their own short lives. They have new preoccupations as well:

- In black and Latino communities in New York, a disproportionate number of the highest-functioning family members are members of the

armed forces. Worry about family members in the military may make it difficult to support the child who is safe at home. As children hear about deaths and atrocities in the war, they may be overwhelmed with worries about the safety of their family members.

- For children whose ethnic group or religion is profiled or targeted, active assaults on the ego go on every day. Families may be stretched to provide the extra ego support needed for a child whose identity is casually attacked by media or even occasional thoughtless remarks by friends or community members.
- Increased economic hardship makes it difficult for family to focus on children's emotional needs as family members scramble to make ends meet.

All of these worries, fears, and preoccupations could affect children's ability to attend to lessons, sit still in class, and get on with the business of learning. When we combine these with the personal and family problems that so many children have, we understood that it was an overwhelming task for some children to calm down and concentrate, especially for those targeted by the study, many of whom had suffered from severe previous exposure to family and community violence.

Setting Up the Program

We cold-called schools in Brooklyn Heights, Williamsburg, Fort Hamilton, and Bedford Stuyvesant in Brooklyn, where students had seen from their school windows the towers fall during the September 11 attacks and had been exposed to smoke, odors of death and dying, and soot for months after the attacks, but where no intervention had occurred. We were also contacted by Seward Park High School, a school in the Chinatown section of Manhattan (where students had to walk through checkpoints to get to school and had rescue teams sleeping in the auditorium). Because of their location two blocks north of Canal Street (and perhaps because of the low socioeconomic status of most students), no intervention had been offered to them. The school serves a large number of refugee and immigrant youth. We also included Yeshivoh in Williamsburg directly across the bridge from the towers, where the destruction could be both seen and smelled and where a large proportion of Holocaust survivors from Europe and their children and grandchildren were among the population.

The principals we contacted were quick to respond: "Nine-eleven, you want to talk about 9/11? Where were you a year ago when the building was

full of smoke, families were sleeping in the gym, and nobody cared? Right now, our kids are failing, our school is understaffed, and we are under pressure to produce test results or risk consequences from the central board of education. We have no time for trauma here!”

Undaunted, we told the principals we would accept referrals of children who had

- Failed one or both of the standardized tests in reading and math.
- Had behavior or attendance problems that made their participation in remedial programs problematic.
- Had no diagnosable condition that made them eligible for special education referrals.

When we said that we would provide free in-school services for *these* children, then those principals were ready to listen to our proposal. They invited us to explain our program to teachers and to send permission slips home to parents. (In fact, most of the children who met these criteria were children with parents dead or in prison, a close family member murdered, or the children themselves had been removed from home because of severe physical abuse.)

What Did the Program Do?

- A close collaboration was developed with the management team in each school, including weekly individual meetings with the principals by program management to hear their special concerns and group meanings with the school guidance teams. Teachers benefited from an open-door policy, which allowed them to discuss any issues with staff during lunch hours. Collaborative workshops discussed the schools' needs and helped conceptualize effective ways to work with children. Teachers were always in the lead in this process. Within the context of the collegial relationship, the program staff served as consistent container for the aggressive anxieties raised by working in the school.
- The program provided a team consisting of a social worker and an art therapist to each school. The team was consistently available for the 18-month duration of the project. They interviewed each family, did an assessment of the family's ongoing psychological and practical social needs, and facilitated referrals to family service agencies in the neighborhood that could assist them in addressing the problems, making home visits if necessary.

- At school, the younger children were offered twice-weekly small-group workshops (three or four children together) that allowed them to understand and address their issues systematically, first through activities and projects, then through play and art, and finally by creating narrative. At first the children were unable to actually play; they reenacted repetitive scenes of violence. Toward the end, they could engage in actual imaginary games that included laughter. (This aspect of the work requires its own paper.)
- Older children were seen in similar groups modified for older children. In addition, those who requested it were seen in individual counseling. All of these youngsters were asked to design small projects to provide assistance to the school community so that instead of being identified as troublemakers, they could be identified as helpers. Although an insignnia and uniform would have been desirable, they were not provided because of school regulations.

Results of the Program

At the end of the program, we did not measure the existence or reduction of symptoms of posttraumatic stress disorder. Instead, we simply looked at gross records of school performance to see whether they had improved the capacity to play, learn, and think. Of the elementary school children participating,

- 92 percent passed both reading and math exams.
- 57 percent showed markedly improved classroom behavior as measured by the times that they were sent out of class for being uncontrollable.
- 46 percent showed improved attendance.

Of the high school students,

- 46 percent showed improved grades.
- 87 percent showed improved behavior as measured by number of times suspended or sent to detention.
- 54 percent showed improved attendance.

The Question of Measurement

Although these results utilizing gross measures are positive in themselves, they do not address many outstanding variables. What caused the changes?

We hoped that the availability of a consistent object, someone to begin to “grow on” utilizing expressive techniques, was critical, as was a consistent containing object to support the beleaguered staff. Questions remain, however. Were the changes caused by

- Support for a beleaguered school staff?
- The social service intervention to families that had been previously resistant?
- The solidarity of contact with other students who had the same problems?
- The opportunities for reparative activities?
- A combination of these factors?

Next Steps

Because these same questions arose in program interventions for children affected by violence around the world, it would be desirable to follow up with the development of an instrument that could measure the development of the capacity of symbol formation and do this in a way that is applicable to large groups, across culture and socioeconomic class. Therefore, I am currently beginning the process of reviewing existing measures and literature toward the piloting of such an instrument.

In Summary

Children and adolescents, in the United States and around the world, are at tremendous risk because of exposure to war and community and family violence. Existing data were phenomenological and culture-bound, and also based on a concept of “post”-conflict that does not reflect the reality of the majority of situations today. It was therefore necessary to unpack the symptoms of posttraumatic stress disorder to determine whether there were ways to mitigate those symptoms in children and youth in situations of ongoing conflict or for whom the factors that promote resilience were in short supply or absent altogether. It was also important to look at how families and communities viewed the violence-related problems of their children and understand their priorities in terms of children’s treatment. These families were less interested in symptom reduction than in ensuring a better future for their children through improved school performance and better decision making regarding risk-taking behaviors. In U.S. cities, it was especially important to assist youngsters to symbolize their experiences so that they did

not simply replicate them in actions that lead to arrest and incarceration. It was important to note that in many communities, violence is ongoing throughout the life of the child, and safety cannot be guaranteed. We therefore continually seek to develop programs that address these issues specifically, especially in situations where external variables cannot be controlled, such as war and community and family violence.

To ensure that we know what makes programs effective and that such programs are replicated and funded, we must develop quantitative measures that can demonstrate that such programs work and exactly why they do. The hope is to provide the basis for the creation and funding of long-term intensive programs that help children who are affected by war and community and family violence to play, to learn, and to think.

Acknowledgment

A version of this paper was presented to the workshop of the Committee on Psychoanalysis in the Community, American Psychoanalytic Association, January 2004.

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