Impact of Riots on Children

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Community violence has a significant effect on children and adolescents. Early exposure to violence is not without its consequences, which may be wide-ranging from immediate physical loss to emotional and mental trauma. A study was conducted using a specially designed questionnaire, which was administered to third and fourth standard students from two municipal schools in a riot-hit area. The results obtained showed high prevalence of distress symptoms among the study group.

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INTRODUCTION

Research on children and adolescents exposed to community violence has consistently demonstrated that young people are significantly affected by their experiences with violence (Davies and Flannery, 1998). Much of the work has focussed on post-traumatic stress disorder (PTSD) and related symptoms as outcomes of violent exposure. The severity, duration and proximity of an individual's exposure to the traumatic event are the most important factors affecting the likelihood of developing the disorder. Community-based studies have shown a lifetime prevalence of PTSD ranging from 1-14 per cent, while studies of at-risk populations have yielded prevalence rates ranging from 3-58 per cent (American Psychiatric Association, 1994).

Disaster has been defined by the World Health Organisation (WHO) in 1992 as 'A severe disruption of ecological and psychological factors, which greatly exceeds the coping capacity of the community and the affected individuals'. Disasters are either natural (cyclones, floods, and so on) or human-made (riots, wars, and so on).

These disasters leave behind them a trail of destruction in terms of death, destruction of the infrastructural facilities, and so on, but more importantly, they leave behind them a psychologically traumatised mass of human beings.

Mumbai, the *urbs prima* and financial capital of India with a population of almost one crore drawn from all over the nation, was regarded as a peaceful, disciplined, well-managed cosmopolitan city. The WHO slogan for the year 1992 was 'Handle life with care. Prevent violence and negligence'. Unfortunately, in the same year, in December 1992 and in January 1993, communal riots erupted and threw the entire city into confusion. People witnessed large-scale violence unknown to the peaceful city of Mumbai. There were dead bodies on the roads, hospitals were full of injured, which included stab injuries, bullet wounds, and so on. As if this was not enough, when Mumbai was limping back to normalcy on March 12, 1993, a barrage of bomb blasts took place in the city resulting in house collapses, massive fires, and loss of lives.

As always happens in such cases, it is the children who are the worst affected in a variety of ways. The consequences ranged from immediate physical loss to emotional and mental trauma that have long-term effects. Some schools tried to bring the emotional trauma out of their systems by asking students to write essays, poems or by drawing. One eight-year old girl had written, 'I don't know why people hate us, Aren't we all God's children?' An 11 year old had written this poem:

> Blood, blood all around; Blood, blood on the ground;
> Bang, bang and a cry; Blood, blood I don't know why?

Early exposure to violence is not without its consequences and has shown to be related to PTSD symptoms for children (Martinez and Richters, 1993) and adolescents (Singer, Anglin and Song, 1995). Singer, Miller and Slovak (1997) have also demonstrated the link between exposure to violence and PTSD symptoms for elementary school going children, with 40 per cent of children exposed to high levels of violence reporting clinically significant PTSD symptoms. The relationship holds for children in urban, suburban, and rural settings (Singer and others, 1995; 1997). Repeated and chronic exposure to violence can have a debilitating effect on a child's developmental course and outcome (Osofsky, 1995a and 1995b).

However, people sometimes assume that young children are not affected by exposure to violence and victimisation and that young

children are too young to what is happening to them. We believe that this is simply not the case. Young children may not be able to effectively verbalise their fears and concerns to others, but this does not mean that they are immune to the effects of violence. Also, the bio-psychosocial sequelae of violence exposure ripple through the family system and across developmental time. Comorbidity of PTSD, with other psychiatric disorders, is very common. In addition, the impact of violence extends well beyond the child who is physically victimised to other larger groups of children such as those who have witnessed these events (Knapp, 1998). These children have come to be known as the silent or invisible victims (Drell, Seiger, Gaensbauer, 1993; Osofsky, 1995a and 1995b).

MATERIAL AND METHOD

In response to the widening concept of disasters and a growing understanding by professionals of the needs of a disaster affected population, our department decided to study the impact of riots on children's mental health. A specially designed questionnaire was administered to 3rd and 4th standard students from two municipal schools in a riot affected area in Mumbai. The proforma comprised questions, answers to which indicated anxiety symptoms and fear. Specific questions related to the rioting were also included in the questionnaire. Each question had three choices: 'No' was scored as zero, 'To Some Extent' was scored as one and 'To a Large Extent' was scored as two. A score of more than 10 was considered significant.

Psychiatry residents and the Psychiatric Social Worker from the department interviewed each student separately to fill the questionnaire. The interviews started in February 1993, that is one month after the riots. Though a total of 515 students were interviewed, analysis was carried out in 495 cases only, as 20 were incomplete. The same questionnaire was administered after six months to 59 students who had scored more than 10 during the first interview.

RESULTS AND DISCUSSION

The demographic features of the study is given below in Box 1. Box 2 gives details of the somatic symptoms, sleep disturbances and anxiety symptoms present in the study respondents.

BOX 1: Demographic Features of Students

Demography	
Age	: 7 to 12 years
Sex: Boys	: 51.5 per cent
Girls	: 48.5 per cent
Religion: Hindus	: 45.7%)
Muslims	: 8.9%
Christians	: 0.4%
Buddhism	: 15.2%
Unaware of religion	: 20.8%

BOX 2: Results

Somatic Symptoms	
Present	: 199 (40.2%)
Headache	: 148 (29.9%)
Stomachache	: 90 (18.2%)
Sleep Disturbances	
Present	: 310 (62.6%)
Anxiety Symptoms	
Present	: 166 (35.5%)
Fear of destruction of house	: 301 (60.8%)
Fear of injury, illness or death	: 212 (42.8%)
Fear of going out	: 195 (39.4%)
Fear of playing with other community	: 318 (64.2%)
Score	
Zero	: 49 (9.9%)
> 10	: 104 (21%)
Victims	: 76 (15.3%)
Score After 6 Months	
Out of 104 only 59 were traceable, Score greater than 10 in 7 cases (11.9%)	

Box 1 above shows that proportion of boys in the study was a little more then half (51.5 per cent) and the majority of the students (54.7 per cent) were Hindus. Box 2 shows that somatic symptoms were present in 199 (40.2 per cent) students. Headache was the symptom reported the most (29.9 per cent) followed by stomachache (18.2 per cent). Sleep disturbances with frightening dreams and nightmares with revisualising the scene of the riots seen in the neighbourhood or on television was present in 62.6 per cent cases. Anxiety symptoms like feeling tense, scared, or worried were present in 33.5 per cent children with fear of playing with other community children (64.2 per cent) being reported by the highest number of students.

On measuring the score, zero score was obtained by 49 students (9.9 percent) and more then 10 by 104 (21 percent) students. Of the 76 victims, 18 (23.7 percent) had scores of more than 10. Of the 104 students only 59 were traceable and more than 10 score was still present in only 7 (11.9 per cent) students.

One non-referred random sample of urban youth exposed to community violence revealed that 34.5 per cent met full criteria for PTSD (Berman, 1996). Another study of a similar cohort demonstrated that 24 per cent met PTSD criteria (Breslau, 1991). According to Lipschitz, Winegar, Hartnik and Southwick (1991), 32 per cent hospitalised adolescents met diagnostic criteria for PTSD. However, according to Scherring and Drell (1995), young traumatised children may present with relatively few typical symptoms. It may be because many of these symptoms require verbal descriptions and such young patients have limited cognitive and expressive skills. This makes inferring their thoughts and feelings difficult. So such children may present with generalised anxiety symptoms, avoidance of certain situations (which may or may not have an obvious link to the original trauma), and sleep disturbances and preoccupation with certain words or symbols (which may or may not have an apparent connection with the traumatic event).

Terr (1991) emphasises four PTSD-specific symptoms that children consistently display, regardless of the source of the trauma:

- repeatedly perceiving memories of the event through visualisation or 're-seeing' aspects of the trauma;
- engagement in behavioural re-enactments and repetitive play related to aspects of the trauma;
- trauma-specific fears; and
- pessimistic attitudes about people, life, and the future, manifesting as a sense of hopelessness and difficulty forming close relationships.

Terr also makes the useful distinction between traumas that result from 'unanticipated single events' (Type I trauma) and those that result from longstanding or repeated exposure to multiple events (Type II trauma). While brief traumas may have only limited effects on the individual, repeated trauma may lead to anger, despair, profound psychic numbing, and dissociation, resulting in major personality changes.

What is the immediate and long-term psychological impact on children witnessing violence? What factors mediate a child's response to witnessing violence? Available literature suggests that multiple factors play a role in both the development of PTSD and the severity of disturbance when a child has been exposed to a critical incident. It is also recognised, though even more poorly understood, that some children develop coping mechanisms better than others. This may be related to the innate qualities that the child possesses, such as positive sense of self-worth, or outside factors, such as a strong support system. Age, gender, developmental phase, severity of the incident, chronicity and available social support have all been explored as factors that mediate children's responses to psychological trauma. In general, children who witness severe or chronic violence are more likely to develop symptoms of PTSD if they are younger, if the violence is frequent, and if it is perpetrated in close proximity to them (Garbarino, Kostelny and Dubrow, 1991). The importance of age and developmental level as factors in the behavioural response of a child who has witnessed violence are well-recognised. A 'ripple effect' has been described, whereby the younger the age of the child's exposure, the more likely the cumulative effect on development.

Infants are noted to have disrupted sleeping and feeding routines with resultant poor weight gain. They can scream excessively and not attain expected developmental levels (Zeanah and Scheering, 1996). Pre-schoolers who witness violence are likely to seem withdrawn, subdued, or mute. They are also likely to exhibit anxiety and clinging behaviour, experience nightmares, and repetitively re-enact the event through their play. They may regress, for example, to bed-wetting or sucking their thumbs. Pre-schoolers tend to focus on the event in their reactions. For instance, the actual shooting or stabbing is evident through play, but children may seem unclear about the surrounding circumstances.

School-aged children are observed to have a change in behaviour or react inconsistently. School performance is an important

measurement of children's inner turmoil. Previously even-tempered children get into fights or are moody. They focus not on the event, but also surrounding details. An important red flag to physicians is the onset of vague somatic complaints, such as headaches and stomachaches, as has been found in our study. Osofsky, Wewers and Hann (1993) have pointed to the potential difficulties in affect regulation for young children exposed to or victimised by violence. Affect regulation is an important developmental task with respect to learning how to regulate aggressive impulses, differentiate between various emotional states and learn pro-social behaviour. School-aged children exposed to violence may experience symptoms such as increased anxiety, irritation, distraction, depression and dissociation. All these symptoms may impair children's ability to learn at school. Sleep disturbances, nightmares, and increased anxiety are common for children of all ages as a consequence of exposure to violence (Pynoos, 1993), a result which has been replicated in our study.

The adolescent expresses rage, shame, and betrayal. This is manifested by rebelliousness, dropping out of school, drug use, and running away. Adolescents may feel guilt over the incident and potentially use self-blame in their responses. Adolescents may also experience loss of impulse control.

Severity of the incident is a factor in mediating a child's response to witnessing violence. Children who witness a push, a slap, or a shove are less likely to have a severe response than children who witness a stabbing or shooting. Similarly, the effects are less severe when the violent stressor is a natural disaster, such as a tornado, flood, hurricane, or earthquake as opposed to an act of one human against another (Malmquist, 1986).

Sleep disturbances may be especially common in pre-pubertal children according to Benedek (1985) and Terr (1983), which was reflected in our study where 310 (62.6 per cent) children had sleep disturbances with frightening dreams and re-visualising the scenes of the riot. Re-experiencing symptoms is one of the criteria to diagnose PTSD, which may manifest by repetitive play or frightening dreams.

Among somatic symptoms, headache was the highest (29.9 per cent), followed by stomachache in 18.1 per cent. Anxiety symptoms in the form of feeling scared, worried, fear of destruction of house, fear of injury or illness or death to self or family members were present in more than 30-40 per cent children. According to Lipschitz and others (1999), male youngsters have more co-morbid diagnosis of

eating disorders, anxiety disorders and somatisation disorder, but we did not find such difference in our study. According to McCloskey (2000), children with PTSD displayed co-morbidity across different symptom classes, most notably phobias and separation anxiety, which was found in our study where 39.4 per cent had fear of going out alone; even going to school was in a group or one of the family members used to accompany them. Usually children like to wander around after school hours, but during that period they used to come back home without playing or wasting their time anywhere on the way.

Fear of playing with the other community was present in 64.2 per cent of the students. This may be because children are unable to differentiate between good and bad so they were scared of the whole community or it may be that they were just imitating the behaviour of their parents.

On the chances of recurrence of riots, 52.3 per cent students said it was going to recur and whatever days they predicted were related to some religious festivals. Terr(1983) described the high prevalence of 'omen formation' in these children. They come to believe that certain 'signs' were warnings of a traumatic event approaching and that if they were alert enough, they would be able to see 'omens' predicting future disasters.

Follow up was done with the help of the same questionnaire. We could interview only 59 out of the 104 students who had scored more than 10. This was because many of the students had left the school or had changed their residence may be due to the after effect of the riots. Score above 10 was still found in seven cases (11.9 per cent). However, nearly 50 per cent of students having high score were not traceable and it is more likely that many of them may be victims of the riots in the form of losing their house or parent(s), destruction of property, and so on in agreement with our study. Laor (1997) found a significant decrease of PTSD symptoms in children displaced from their homes during the SCUD missile attack from 6-30 months post-exposure. McFarland (1987) studied children exposed to Australian bushfires and found no decrease in PTSD symptoms from 8-26 months after the fire. Milgram (1988) evaluated children after a school bus disaster and found that 50 per cent of the children at the accident scene met full PTSD criteria one month later, but only 20 per cent continued to meet the criteria later. There have been no well-controlled studies, which examined the natural course of PTSD in children. Several authors and researchers have addressed the question of symptom persistence versus

spontaneous remission, but none have adequately controlled for the impact of treatment and other intervening stressors, as opposed to the mere passage of time.

Untreated or undertreated post-trauma reactions can evolve in ways that can become, or at least be labelled with, another diagnosis (sometimes without recognition of the trauma based cause). These children may be diagnosed with attention deficit disorder (Thomas 1995); depression or dissociative disorders (Terr 1991); separation or attachment problems (Amaya-Jackson and March, 1995); and substance abuse-problems and personality disorders (Allen, 1996). Many, if not most, adolescents seen for victimisation or witnessing of community violence are already in a state of emotional denial and psychic numbing, which is characteristic of longstanding or repeated traumatisation (Terr, 1991). Overlaying this is a system of mental health care that has undertreated or ignored minority patients for many years, sending a message 'that you should keep things to yourself.

Furthermore, the internalising nature of PTSD symptoms makes it quite possible to hide the symptoms if so motivated, including from parents and significant others (Amaya-Jackson and March, 1995). Parents have also been noted to downplay or deny the impact of traumatic life events on their children (Bromet, 1990).

But if mental health professionals help the victims at the right time by way of counselling, supportive psychotherapy, group therapy or behavioural modification with the help of relaxation, then the impact will be reduced. In addition to individual risk factors, multiple developmental tasks, behaviour and exposure in multiple contexts should be addressed. It is important that prevention and intervention efforts begin as early as possible.

We would like to end with Mahatma Gandhi's words:

> I hold that the more helpless the creature, the more entitled it is to protection by man from cruelty of man.

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