

Longitudinal Effects of Trauma

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Abstract

Post-traumatic stress syndrome is now well known fact after some kind of traumatic events. It used to be thought that the effect of traumatic incidences are transient and will go away over the time. However, recent studies done both adults and children showed that traumatic effect may continue for a long time over a decades or even lifetime and even it can transferred from one generation to the next generations. This literature review provides some of the early studies and then moves on to exemplify some of the longitudinal studies done in different part of the world involving different types of natural disasters and man-made calamities. Now, we have accumulated a considerable amount of scientific literature proves that trauma can have a long lasting effects and can be very persistent situations in a person's life.

Keywords: longitudinal studies of ptsd; long-term effects of trauma; intergenerational trauma

It is debatable that most of the children who have experienced a disaster may not develop a specific psychiatric illness (Magritte, 2000; Sullivan, et al. 1991); it is while a significant number of them develop symptomatic behavior (McFarlane, et al. 1987 & Sullivan, et al. 1991).

Saigh (1992) also studied on man-made disasters, in which Lebanese children were exposed to extreme adversity due to civil war, and concluded that although a considerable number of individuals encountered extreme stress, the majority of them have not developed PTSD.

In a similar study on offspring of Holocaust survivors, Yehuda, et al. (2000) concluded that regardless of the magnitude of trauma, not all survivors have suffered from chronic PTSD symptoms. By definition PTSD cannot be diagnosed unless symptoms have lasted a month (APA, DSM-IV, 2000). Even children who show relatively high levels of PTSD symptoms several months after the disasters often do not meet criteria for PTSD. This might misguide mental health professions because there is some recent data that proves some children develop delayed onset PTSD. Hence, children who were not identified in the initial assessment may be at risk of developing PTSD symptoms later.

Conclusions concerning children's responses to disasters have shifted over time. Some early classical trauma studies, (Bloch, et al. 1955) concluded that children's responses are relatively mild and transient. In contrast, Yule (1992) reported that children's responses to disaster are very stable across the first year period and they should not have been seen as transitory until the children have been observed on the responses for at least two years. In the same way, in subsequent studies in the 1970s and 1980s, evidences appeared that some types of disasters might have severe and long lasting effects on some children (Newman, 1976); and some follow-up longitudinal studies (e.g., Lacey, 1972 & Terr, 1979; Terr, 1983) emphasized the long-term effects of trauma. These reports indicate that children might show effects 2 to 5 years after some major disaster/events.

In one of the earliest studies, Lacey (1972) evaluated 56 children in fourth year after the Aberfan, mine collapse and landslide disaster of 1966, Wales. Results showed that even four years after the trauma, the children still had difficulties in sleep, nervousness, lack of friends, irritability, and had phobias and fears of darkness. Terr (1983) noted



late signs of trauma four years after the traumatic kidnapping incident. Symptoms included residuals of traumatic anxiety, the wish to recall or discuss the kidnapping, mundane fears, repression, hyperamnesia, and decline in school performance.

Indeed, the effects of wartime and natural disasters may not be fully experienced until long after the event (Buckley, Blanchard & Hickling, 1996). In a study of Israeli veterans who developed delayed onset PTSD secondary to the war in Lebanon, Solomon, Kotler, Shalev & Lin (1989) retrospectively reviewed the files of 150 veterans who sought treatment between 6 months and 5 years after the war. They found out that 10% of this treatment-seeking group had delayed onset PTSD. Meanwhile, Buckley, et al. (1996) investigated the long-term effects of motor vehicle accident survivors. The results showed that 7 of 96 injured victims (7%) developed delayed onset PTSD during a one-year retrospective follow-up interval. The average interval from accident to developing full PTSD was 8.5 months.

Numerous studies have reported that technological and man-made disasters are different from natural disasters and are more likely to cause long-term psychological distress. However, some longitudinal studies show that even natural disasters may have long-term lasting effects. Furthermore, in natural disasters usually there is not enough time for advance warning. Humans have no control over natural forces, and this suddenness, lack of control, and uncertainty after the disaster contribute more stress. Some studies measured long-term sequela after natural catastrophes and shed more light on the long-term effects of disasters.

Natural disaster studies suggest that people exposed to such trauma may not meet the criteria for PTSD for a long time. Steinglass & Gerrity (1990) compared a tornado and a flood disaster in two different communities and did follow-ups in the 4th and 16th month's post-disaster, using an adult sample. They found that almost half of each sample had PTSD symptoms in the 4th month and at 16 months post-disaster; and although there had been an obvious decrease in the level of stress symptoms across individuals, 24% of adults in the flood experience, and 41% in the tornado area were still experiencing high levels of stress. Steinglass & Gerrity (1990) concluded that having PTSD symptoms following a disaster is a normative reaction, and many of the symptoms dropped down in the 10-16th months after the disaster. Thus, it seems that PTSD responses resolved themselves within a year of the event. They also proposed that since a very small percentage of PTSD-diagnosed subjects did not seek professional help for their symptoms, there must be a "natural" solution or healing for this problem. On the other hand, McFarlane, et al.'s (1987) longitudinal study with elementary school children did not report a decrease in symptoms in the 8th and 26th month follow-up. They also speculated that problems do not spontaneously resolve themselves. In their study of the Buffalo Creek Dam collapse of 1972, Green, et al. (1990) reported 14-year follow-up data on a sample of individuals exposed to the dam collapse. Of those who participated in the follow-up portion of the study, 11% had delayed onset PTSD. In another Buffalo Creek study, Green, et al. (1994) conducted a 17-year follow-up study. Child survivors ages 2-15 were first evaluated in 1972, again 2 years after the disaster, and reevaluated 17 years post disaster as adults. Psychiatric instruments showed significant decreases in overall severity ratings in anxiety, belligerence,

somatic complaints, and agitation over the 17-year period. However, there was no change in the average depression ratings. On the other hand, when survivors grow up, they have developed alcohol and drug abuse, and suicidal ideation at a higher level than the population control. In the later study the follow-up rate of PTSD was 7 % in comparison to the second year follow-up, when it was 32 %. In a more recent study, Yule (1992) investigated the experience of a ship-sinking incident and conducted a one-year follow up. According to his findings, almost 50 % of his sample had PTSD and all of the children scored high in depression and anxiety scales. Furthermore, Yule concluded that PTSD was very stable at least across the first year. His study also revealed that children as young as 8 years old may suffer from PTSD in the form that is presented by adults. The effects can go one or two years and should not be considered transitory. In a study with severely maltreated children, 32 % of those diagnosed with PTSD retained their diagnosis in the second year (Famularo, et al. 1996). This clearly shows that traumatic events have the potential for continued impact over time.

Likewise, in one of the best prospective follow-up studies of trauma victims, McFarlane (1988c) reported data on a sample of 496 Australian firefighters over a 29-month period. Of the final 315 firefighters who participated in the follow-up, 62 equivalent to 20 % of the sample showed delayed onset of PTSD.

With respect to children, the psychology literature provides evidence of similar delayed reactions. Generally, children's disaster-related symptoms decrease over time, although some exceptions were reported. McFarlane, et al. (1987) stated that children's somatic reactions, and emotional and behavioral problems, based on data from both parent and teacher reports, showed a consistent increase in morbidity between the 2nd and 8th months. However, there were no differences between 8-month and 26-month reactions. Dollinger (1985), investigating children's emotional responses to a lightning strike, found that during the first couple weeks following the strike, a wide range of disaster-specific stress symptoms emerged; however, at the 9-month follow-up, almost all the children were functioning quite well and symptoms were abated. Therefore, it was suggested that trauma-related reactions are transient and do not cause severe psychopathology. Quarantelli (1985) speculated that mental health effects of disasters are short-lived, transient, and thus do not require much attention. Correspondingly, Green and Solomon (1995) wrote that effects of a natural disaster might persist as long as 3 years, but most symptoms start to disappear within 16 months. On the other hand, Vogel & Vernberg's (1993) special Task Force report on PTSD indicated some exceptions for decreasing symptoms: 1) man-made disasters cause more persistence of symptoms and 2) very high levels of threats to life 3) substantial destruction 4) bereavement and 5) continuing effects on family functioning all caused extra stress for children. The overwhelmed child cannot handle all of the stress at once and will either have long-term persistence of symptoms or develop additional disorders based on the child's ego strength and defense mechanisms, as well as social and familial support. Overall, studies of natural disasters indicate that after approximately a year and a half, the effects of such events are no longer prominent (Green, et al. 1994). In contrast, the technological disasters and disasters caused by human errors or deliberately inflicted harm have multiple dimensions, and thus have longer effects on the



victim's life.

Moreover, studies (Yehuda, et al. 2000) done with Holocaust survivors and family members suggest that trauma might cause life-long impairment. Further, trauma might even be an "intergenerational phenomenon." Deliberately originated accidents, torture and persecution seem to have longer effects, provided that they were perceived by survivors as preventable.

Conclusions:

It appears that no one is trauma free. Those who have experiences some form of trauma will carry the scares all over their lifetime. This is especially true for the man-made accidents, man-made trauma and man-made torture or abuse. Now, we are more aware of the long term effects of traumatic experiences. Therefore, psychologists, counselor and other mental health workers should be aware of the long lasting effects of traumatic experiences. This is especially true for the victim of childhood victims of sexual abuse, ethnics violence or political violence. Because, those events are evaluated by their victims' as a planned, organized and deliberately orchestrated activities that could have been prevented if necessary attention has been paid for the human life and their life and their right to live is cherished.

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