The impact of Trauma on Adolescents: A case report and brief review

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ABSTRACT
Posttraumatic Stress Disorder (PTSD) is the most commonly studied psychological disorder after a traumatic experience, and it should be considered in any patient that has been exposed to a major traumatic event. On April 16 of 2016, a very large earthquake struck the coast of Ecuador, becoming the worst natural disaster to hit Ecuador since the 1949 Ambato earthquake. There is a lot of research going on for PTSD treatment strategies and diagnosis in children and adolescents. We present the case of a 16-year old Hispanic male, survivor of the earthquake that suffered from PTSD and the process he went through.

INTRODUCTION

Posttraumatic Stress Disorder (PTSD) represents a systematic pattern of symptoms resulting from a traumatic experience (1). It is the most commonly studied psychological disorder after a trauma (2). Childhood and adolescent trauma involves a wide range of experiences that threaten the safety, physical well-being and the life of a child or loved one, such as domestic violence, child abuse and neglect, bullying, foster care, military experience, natural or manmade disasters and murder or suicide of a loved one (3, 4).

On April 16 of 2016, a very large earthquake struck the coast of Ecuador, with a moment magnitude of 7.8 and a maximum Mercalli intensity of VIII (Severe) (5). This has been the worst natural disaster to hit Ecuador since the 1949 Ambato earthquake (6). It was centered across Manabi province causing a widespread damage with at least 676 people killed and 16,600 people injured (7). The main regions affected were villages. Large cities tend to have buildings more resistant to shaking than villages, therefore the damage was greater. There is not enough research in Ecuador of how this affected the mental health of adolescents in these regions.

CASE REPORT

PR was a 16 year-old Hispanic male from a rural region of Ecuador named Jama in 2015. This small village is located in Manabi province in the coast of Ecuador. He is a survivor of the earthquake that struck this area in 2016. He and his family agreed to have an interview after two years of the event. The patient was very cooperative with all the specific questioning we had. This is his story:

The afternoon of April 16 of 2016, PR was helping his mom clean their cafeteria, which was a fast food shop located in the first floor of their three-floor house. This was their job, their daily income. He finished cleaning and decided to have a rest outside of the shop sitting on a

chair that was leaning near a wall column, while his mom was still cleaning inside the shop. His dad came, greeted them and left to play cards in the corner of the street with other villagers as it was used to be. While sitting on the chair he started to feel the earth shaking, got really scared and confused not knowing what was better to do if to get out to the street or to stay and stand still. He looked inside the shop and saw his mom running outside towards him to hold him, they hugged together and stood still waiting for the earth to stop shaking; within the range of a few seconds they lost their balance and fell to the ground, the wall columns fell on top of them, breaking his mom´s neck and breaking his left arm. His mom fell death in his arms, PR explained "I immediately felt that my mom was dead in my arms". Meanwhile, his dad went running back to the house yelling and searching for them since all the dust and debris surrounding the air made it difficult to see clear, PR heard him and yelled back "we are here underneath, my mom is here with me but she is dead, please help us get out". PR waited for around 20 minutes underneath the debris with his mom´s body by his side and with all the pain he had in his left arm until helped was reached by his dad and other villagers. He finally got out and felt all of his body numbed, ripped his t-shirt and made a sort of sling for his arm while the rest of the people were taking his mom´s body out of the debris and placing it in the back of a truck. In the middle of this tragedy, everybody started panicking because of a tsunami alert and PR had to jump into the truck and travel with his family to the nearest hill, very slow and cautious because of the wrecked roads; they spent the night there with his mom´s body in the truck covered with a blanket.

The next day they went down the hill back to Jama to look for a coffin, and then they went to one of their friend´s house where his mom´s funeral took place. PR was shocked of everything that has just happened, his mom´s death, the destruction of the whole village, all the corpses in the streets, and all the silence that was left. The tsunami alerts were still on so they decided to go back to the hill and buried his mom there; they spent the night there again with a minimum amount of water and food. After two days of the event rescuers came to the village from other regions of Ecuador and took PR to the nearest hospital where he got surgery and recovered completely from his fracture.

His older sister that lived in another city of Ecuador, Cuenca, took him to live with her, enrolled him in a new high school and wanted to help him in every possible way. PR started to have many symptoms of PTSD like: persistent distress or fear, specially of aftershocks of the earthquake that that were very frequent and of getting into elevators; he had an exaggerated startle response; persistent thoughts and flashbacks of his mom´s death which he would force himself to avoid; difficulty falling asleep and difficulty concentrating especially at school were also some of his symptoms. These symptoms lasted for approximately 3 months. His sister took him to a psychologist that used a cognitive behavioral therapy that helped him get through all of his traumatic experience. PR explained "the psychologist did help me a lot, I finally slept better and graduated from High School, I was not scared anymore of elevators and I finally felt capable of going back to Jama after 3 months, we moved my mom to another cemetery, much nicer and one that she would have liked better".

PR is now an 18 year-old strong and brave male that has learned that all of the traumatic experience he had to live is a past event in his life, thanks to all the support he received from his family, his friends and his psychologist. He thinks he has a whole life ahead of him and is ready to go to college and become a civil engineer.

DISCUSSION

PTSD can severely affect the social, personal and academic phases of a child or adolescent and can continue till adulthood. Medical correlates of childhood and adolescent trauma include asthma, headaches, allergies, gastrointestinal disturbances, and vision problems (1). The longer it takes to get back to normal, the more likely coping strategies will be exhausted and negative mental health outcomes will occur in the long term.

This hindering disorder involves persistent distress or fear, persistent thoughts, memories or flashbacks, significant variations in mood and behavior like difficulty falling or staying asleep, outbursts of anger, difficulty concentrating, exaggerated startle response and avoidance of traumatic memories or reminders (1, 2, 3, 8). In order to have a diagnosis, the symptoms should be present for at least one month and should cause significant impairment of functioning. Trauma can mimic other behavioral health problems, especially in young patients, because of this, many are misdiagnosed and do not receive appropriate treatment on time (8). Many children and adolescents do not seek help because of many obstacles: limited access to mental health services, few providers with PTSD experience and the stigma that exists with mental health (1).

There is a lot of research going on from multiple clinical trials to find treatments for PTSD in children and adolescents, such as trauma-focused interventions: parental involvement; coping skills training to manage trauma; mastery of avoided situations associated with the trauma; structured retelling of the trauma supported by a specially trained therapist (1). Desensitization is another evidence-based treatment, in which children are exposed to traumatic reminders both in vivo and through creation of the trauma, helps children understand the trauma experience as a past event in their life (9). The PRACTICE of CBT for Traumatized Youth: P-Psychoeducation, R-Relaxation, A-Affective Modulating, C-Cognitive Processing, T-Trauma Narrative, I-In vivo desensitization, C-Conjoint parent/child sessions, E-Enhancing safety and future skills, is a didactical way of not missing the main treatment principles for PTSD (4). Evidence of pharmacotherapy in treating PTSD is limited and is only recommended when symptoms are so severe that a child or adolescent cannot participate in psychotherapy (1).

PTSD is a very challenging diagnosis to make because of its variety of clinical symptoms, especially in the youth population (10). Pediatric providers are in the sole position to detect these cases and to offer the best prevention and treatment measures there are to decrease the harm and sequels in children and adolescents as much as possible.

CONCLUSION

In Ecuador, the lack of trauma-related professionals and the deficit of PTSD research and reviews makes pediatrics become the first line of response and therefore it becomes a greater challenge for providers to screen for it and treat it. In this case, when PR went to the hospital to get his arm fixed, nobody screened him for PTSD which should have been a MUST. If it wasn´t because of his sister, PR would have never recovered from his trauma and the sequels would have been unfortunate.

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