

Summary of Chronic Stress in Children Following the Canterbury EQs: Presentation by Lee Hooper (PhD Candidate, University of Canterbury)

Earthquakes (EQs) are different from other natural disasters in that they are unpredictable, invisible, and chronic. Because of this, EQs present children with a different set of adversities to deal with as compared with other types of natural disasters.

EQs can affect children (as well as adults) on both a physical and mental level. For instance, EQs can increase stress hormones (such as cortisol), upset digestion, and may cause sleep disturbances (such as trouble going to sleep and nightmares).

Prolonged exposure to chronic stress (such as EQs) can also change the way the brain functions and affect memory consolidation, heighten threat perception, and impair decision-making. This is in part due to the effects of stress on the way the prefrontal cortex and amygdala communicate.

Researchers have noted that prolonged exposure to stress can lead to posttraumatic stress symptoms (PTS) in children. Some of the symptoms of PTS in children include irritability, defiance, nervousness, difficulty concentrating, emotions that do not seem to fit the situation, withdrawal, and anxiety, as well as somatic (body) symptoms, such as headaches and digestive problems.

When children experience chronic stress, they may use coping methods such as:

- 1) Reactive Coping;
- 2) Dependent Coping, and;
- 3) Withdrawal.

It is important to understand that children are not consciously choosing to behave in this way and that these types of coping strategies are often an automatic response to feeling overwhelmed with stress.

Children who are coping better with stress may be able to use coping methods such as self-regulation or seek social support. However, to develop self-regulation, children need to:

- 1) understand what is going on in their minds and bodies, so that they can recognise when their body is responding to stress;
- 2) understand the emotions of others;
- 3) have the words they need to tell others about their feelings;
- 4) learn strategies to control their feelings,
- 5) be able to direct their behaviour toward a particular goal, such as following directions;
- 6) be able to control their behaviour to recover from an upset, and;
- 7) be able to remember the above strategies and put them in place at the right time, which can be difficult, particularly in the heat of the moment when children are upset or are sensitive to stress.

It is also important for children to be able to find support from their family, teachers, and peers, on physical, psychological, and emotional level.

As chronic stress impacts both the mind and body, it is important to ensure that the necessary 'building blocks' are there to help children cope. This includes meeting children's requirements for optimal nutrition, hydration, and sleep, as deficiencies in any of these areas can impact learning and behaviour. As adults, I am sure it is easy to remember a time when you were hungry or didn't get enough sleep, and recall how that affected your mood and the way you interacted with others!

Children also learn a lot from the adults around them, so modelling calm reactions to stressful situations can also help to show children more positive ways of dealing with stress. Modelling can involve both verbal and non-verbal ways of showing children how to respond to stressful situations.

Emotion coaching can be a really good way to help children become more aware of the feelings that are going on inside of them, use words to describe those feelings, and know that it is okay to express themselves. Once children are able to recognise when they are stressed, they are more likely to learn self-regulating strategies and to recognise when other children may be stressed.

Lastly, just being there for children is important. Allowing them the space to express themselves and supporting them in a non-judgemental and empathetic way can help to reduce their stress levels and increase their sense of belonging.