Dominica Strong Research Study: Key Findings from Phase I

by Royette Tavernier, Ph.D.

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Research Background
On August 27 2015, Dominica was hard hit by tropical storm Erika. The storm caused severe damage and loss of life. Six months after the storm, the Dominica Strong research study was launched in order to assess the psychological impact of Erika among youth in Dominica. This research report presents some key findings from the first wave of data collection based on a subsample of participants.

Knowledge of Tropical Storm Erika
- 54% of youth did not know that Erika was going to hit Dominica.

Exposure to Tropical Storm Erika
- 37% of youth know someone who died because of Erika
- 27% of youth were separated from friends and family because of Erika

Were you separated from your family and friends because of the storm?
- Yes: 44
- No: 119

Were you separated from your pet(s) because of the storm?
- Yes: 24
- No: 139

Did you have enough food and water during and after the storm?
- Yes: 112
- No: 50
Post-Traumatic Stress Disorder Symptoms

Individuals typically experience symptoms of distress following exposure to a traumatic event. The experience of a storm has been considered a potentially traumatic event, because such an experience may result in separation from friends and family, damage to physical property, lack of access to basic needs (food, shelter, clothing), and loss of life of loved ones. In the present study, we asked participants to report on the frequency with which they experienced a number of posttraumatic stress disorder symptoms, resulting from their experience of Erika.

"I have had repeated, disturbing memories, thoughts, and images or pictures of Erika in my mind"

- Yes: 22%
- No: 78%

"Have you started feeling irritated or angry because of Erika?"

- Yes: 23%
- No: 77%

"Have you ever started feeling very upset when something reminded you of Erika?"

- Yes: 22%
- No: 78%

"Have you started being very alert or watchful on guard because of Erika?"

- Yes: 54%
- No: 46%

Over 50% of youth reported feeling on edge because of Erika
Depressive Symptoms

Depression is a mental illness characterized by changes in mood, behavior, and one’s ability to regulate or change their emotions. There are a number of signs that can help individuals to assess the extent to which they may be at risk for depression. Experiencing one or more of these signs, however, does not mean that you are depressed; only a trained doctor or mental health professional can determine whether someone is depressed. Nevertheless, it is important to pay attention to changes in your mood, diet, energy levels, and ability to relate to others, as these signs are used to help trained professionals determine whether someone is experiencing depression. In the present study, participants were asked to rate the extent to which they experienced a number of different signs/symptoms of depression.

34% of youth reported feeling depressed at 6 months following Tropical Storm Erika
Coping in the Aftermath of Erika

Coping is defined as the use of various strategies to change how someone feels, thinks, and behaves in response to a given situation. When individuals experience distress, there are a number of coping strategies that they can use in order to deal with that distress. Some strategies have been found to be effective in helping to improve one’s mood, while other coping strategies may be ineffective in alleviating negative mood and may sometimes even exacerbate or increase the degree of distress that an individual is experiencing. In the present study, we asked participants to report on the frequency with which they have used different coping strategies to deal with their experience of Erika.

**Coping strategy: DENIAL**

"I have been refusing to believe that it happened"

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<th>Frequency</th>
<th>No. of participants</th>
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<td>A lot</td>
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**Coping strategy: EMOTIONAL SUPPORT**

"I have been getting emotional support from other people"

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55% of participants reported using emotional support as a strategy to help them cope with their experience of Erika.
Coping strategy: INSTITUTIONAL SUPPORT

"I have been getting help and advice from other people"

- A lot
- Some
- A little
- Not at all

No. of participants

Coping strategy: POSITIVE REFRAMING

"I have been trying to see it in a different light, to make it seem more positive"

- A lot
- Some
- A little
- Not at all

No. of participants

Coping strategy: RELIGION

"I have been trying to find comfort in my religion or spiritual beliefs"

- A lot
- Some
- A little
- Not at all

No. of participants
Sleep Problems

Sleep is an important human behavior that has serious consequences for health and wellbeing – both physical and emotional. Problems associated with a good night’s sleep may be indicative of emotional distress and poor health. It is important that individuals pay attention to changes in their sleep-wake patterns as this can be a sign of more serious underlying problems. In the present study, participants were asked to comment on the extent to which they experienced a number of sleep problems.

- The majority of youth (78%) report little or no sleep problems with regard to falling asleep and maintaining sleep across the night.

- However, up to 40% of youth report problems with waking up in the morning.

50% of youth reported having nightmares in the last month, and less than half reported being satisfied with their overall quality of sleep.
There are marked differences in how individuals deal with adversity. In other words, individuals may go through the same negative experience but can deal with it in significantly different ways. Resilience is defined as the ability for individuals to maintain a positive outlook on life even after going through adverse life experiences. One way to measure resilience is to ask participants to comment on how they deal with adversity. In the present study, we asked participants to report on the extent to which they agree or disagree with two different statements that assess the ways in which they deal with negative life experiences.

“I tend to bounce back quickly after hard times”

The majority of youth – 80% - demonstrate resilience, as indicated by the perceived ability to “bounce back” after difficult experiences.

“I usually come through difficult times with little trouble”
Differences Between Males and Females in the Experience of Erika

Past research shows that males and females generally differ in the way that they experience and deal with their emotions. Below are results for statistical tests that compare average scores on the degree of exposure to the Erika, depressive symptoms, and resilience between males and females.

![Gender Differences in Exposure to Storm, Depressive Symptoms, and Resilience](chart)

**Females reported more depressive symptoms than males.**

**Males had more exposure to the storm but reported higher resilience than females.**

**Conclusion**

Results of phase I of the Dominica Strong study indicate that although the majority of youth do not appear to have been traumatized by Erika, a notable proportion of youth reported experiencing some symptoms of PTSD. Furthermore, a number of depressive symptoms were present among youth. Youth generally reported few sleep problems but a sizeable proportion reported that they were not satisfied with their overall sleep quality. Generally, youth appeared to embrace effective coping strategies, including seeking emotional and instrumental support from others. The use of religion as a coping strategy was highly prevalent among this sample. Gender differences in the experience of Erika indicated that males reported greater exposure to the storm, but reported being more resilient than females. Females reported higher depressive symptoms than males. Overall, participants demonstrated a resilient attitude and seemed hopeful about their ability to 'bounce back' post-Erika.

*The Dominica Strong research study was funded by the Foley Center at Northwestern University, Evanston, IL. Royette Tavernier is a native of Dominica, based in the U.S. She is a developmental psychologist, whose research program examines the link between sleep and psychosocial adjustment. Tavernier is an Assistant Professor of Psychology at Wesleyan University. For more information about the author, visit: [http://rtavernier.faculty.wesleyan.edu/](http://rtavernier.faculty.wesleyan.edu/); Follow her on Twitter: @_RTavernier. E-mail: rtavernier@wesleyan.edu*