

Supplemental Material

Paper title:

An Unplanned Test of the Anxiety Buffer Disruption Theory of Posttraumatic Stress Symptoms

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Background and description:

The storm experiences questionnaire (SEQ) was developed by James C. Hamilton, Ian M. Sherwood, Steven A. Allon, and other members of Dr. Hamilton's Illness Behavior Research Group at the University of Alabama to study people's experiences during the EF-4 tornado that struck Tuscaloosa, AL, on April 27th, 2011. The questions that appear below were designed to measure people's experiences related to the physical effects of the tornado as well as the damage and disruption that it caused. There are four subscales, each of which addresses some aspect of exposure to the tornado, including:

1. Physical effects of the storm (13 items);
2. Personal harm or injury (5 items);
3. Exposure to other individuals who had been severely injured or killed (8 items); and
4. Property damage to participants' homes or vehicles and associated disruptions in their living arrangements (12 items).

The scores for each subscale were summed together to produce an overall exposure score, which was used as a predictor in the paper mentioned above. Based on their responses, participants were assigned an exposure score between 0 and 46, with higher scores representing greater exposure to the tornado. The text of all items and the scoring method for each subscale appear below.

SEQ subscale: Physical effects of the storm

This subscale contained 13 items representing experiences that participants could have had related to the physical effects of the storm. Participants were permitted to make multiple selections for items 1 through 13; however, they could only select one of the sub-items for item 13.

Item #	Item	Weight (point value)	Scoring
Check all of the statements that are true for you for the 30 minutes before the storm.			
1	• I watched live video coverage of the storm as it approached.	1	Score based on highest weighted item that was endorsed
2	• I physically saw the storm as it approached.	2	
3	• I physically heard the storm as it approached.	2	
4	• I physically experienced increased wind speed where I was.	3	
5	• I experienced flying debris where I was.	4	
Check all of the statements that are true for you at the moment the storm was closest to you.			
6	• I physically saw the storm.	2	Score based on highest weighted item that was endorsed
7	• I physically heard the storm.	2	
8	• I experienced increased wind speed where I was.	3	
9	• I experienced flying debris where I was.	4	
10	• I saw or heard tree damage.	2	
11	• I saw or heard roof damage.	2	
12	• I was hit by flying debris.	6	
13	• The structure I was in was damaged by the wind, falling trees or debris.	5 +	
	○ Mild damage to the roof, siding, windows	+1	
	○ Moderate damage, including partial collapse or damage to the frame	+2	
	○ Severe damage, structure was a total loss	+3	
Highest score possible		12	

SEQ subscale: Personal harm or injury

This subscale contained 5 items representing experiences that participants could have had related to personal harm or injury. Participants were permitted to make only one selection for Item 1, but could make multiple selections for items 2 through 5.

Item #	Item	Weight (point value)	Scoring
	Pick the one statement below that best describes your experience during and immediately after the tornado.		
1	• I was not physically injured in the storm.	0	Score based on highest weighted item that was endorsed
	• I was slightly injured but did not require medical care.	1	
	• I received minor injuries that were treated at an outpatient clinic or by paramedics.	2	
	• I had one or more significant injuries that required medical care but I was not hospitalized.	3	
	• I had one or more significant injuries that required hospitalization.	4	
	If you were injured in the tornado, use the checkboxes to select all statements that are true for you.		
2	• I was not permanently physically injured in any way.	+0	Score based on sum of endorsed items
3	• I have scars from injuries I received.	+1	
4	• I have permanent, partial loss of function (e.g., partial loss of sight or hearing, partial loss of sensation or movement in a limb, problems with learning or memory).	+2	
5	• I have permanent total loss of a function (e.g., total loss of vision or hearing, amputation or total paralysis of an arm or leg).	+3	
	Highest score possible	10	

SEQ subscale: Exposure to other individuals who had been severely injured or killed

This subscale contained 8 items representing experiences that participants could have had related to the harm or injury (including death) of other individuals. Participants were permitted to select as many items as were appropriate based on their experiences.

Item #	Item	Weight (point value)	Scoring
	Check all of the statements that are true for you in the 6 hours immediately after the storm had passed closest to you.		
1	<ul style="list-style-type: none"> I did not see, in-person, anyone who was killed or severely injured in the storm. 	0	Score based on highest weighted item that was endorsed
2	<ul style="list-style-type: none"> I had physical contact (touched) with a person who died in the storm or with human remains. 	7	
3	<ul style="list-style-type: none"> I saw in-person someone who died in the storm or human remains. 	6	
4	<ul style="list-style-type: none"> I had physical contact with a severely injured person. 	5	
5	<ul style="list-style-type: none"> I saw in-person a severely injured person. 	4	
6	<ul style="list-style-type: none"> I had physical contact with a person trapped in the rubble. 	3	
7	<ul style="list-style-type: none"> I saw or heard in-person someone trapped in the rubble. 	2	
8	<ul style="list-style-type: none"> I watched or listened to media reports of the location of the tornado or the damage that is caused. 	1	
	Highest score possible	7	

SEQ subscale: Property damage and disruptions to living arrangements

This subscale contained 12 items representing experiences that participants could have had related to property damage and disruptions to their living arrangements. Participants were permitted to select as many items as were appropriate based on their experiences.

Item #	Item	Weight (point value)	Scoring
Check all of the statements that are true for you in the days after the storm. – Utilities and supplies			
1	• All of my utilities remained on.	+0	Score based on sum of endorsed items
2	• I experienced the loss of running water in the place I was staying.	+3	
3	• I experienced the loss of electrical power in the place I was staying.	+3	
4	• I experienced the loss of telephone service in the place I was staying.	+2	
5	• I experienced the loss of television in the place I was staying.	+1	
6	• I experienced the loss of internet connection in the place I was staying.	+1	
Check all of the statements that are true for you in the days after the storm. – Personal property			
7	• None of my property was lost or damaged.	0	Score based on highest weighted item that was endorsed
8	• I experienced minor loss of or damage to my personal possessions.	3	
9	• I experienced major loss of or damage to my personal possessions.	4	
Check all of the statements that are true for you in the days after the storm. – Vehicle damage			
10	• My car sustained mild damage.	1	Score based on highest weighted item that was endorsed
11	• My car sustained major damage.	2	
12	• My car was totaled (damaged beyond repair).	3	
Highest score possible		17	

Comparison of Results Using Heteroscedasticity-Consistent Standard Error Estimators HC3 and HC4

Model	Outcome	Predictor	b	p	
				HC3	HC4
2	PTSD symptoms	Tornado exposure	0.20	< .001	< .001
		Pre-tornado self-esteem	0.01	.85	.85
		Trauma history	0.34	.02	.03
		Exposure by pre-tornado self-esteem	-0.02	.04	.06
		Exposure by trauma history	0.03	.03	.13
		Emotional stability	-0.13	.002	.002
4	Change in self-esteem	Tornado exposure	-0.04	.33	.33
		Pre-tornado self-esteem	-0.43	< .001	< .001
		Emotional stability	0.04	.20	.20
4	PTSD symptoms	Tornado exposure	0.28	< .001	< .001
		Change in self-esteem	-0.31	< .001	< .001
		Pre-tornado self-esteem	-0.16	.05	.05
		Emotional stability	-0.14	.003	.003
10	Change in self-esteem	Tornado exposure	-0.01	.89	.89
		Pre-tornado self-esteem	-0.42	< .001	< .001
		Trauma history	-0.20	.02	.02
		Exposure by pre-tornado self-esteem	-0.01	.13	.14
		Exposure by trauma history	0.01	.14	.25
		Emotional stability	0.05	.14	.14
10	PTSD symptoms	Tornado exposure	0.19	< .001	< .001
		Change in self-esteem	-0.32	< .001	< .001
		Pre-tornado self-esteem	-0.12	.11	.11
		Trauma history	0.27	.05	.05
		Exposure by pre-tornado self-esteem	-0.03	.01	.02
		Exposure by trauma history	0.04	.007	.05
		Emotional stability	-0.12	.005	.006

Note. The “Model” column refers to PROCESS model being used (Hayes, 2022). Models in which change in self-esteem appears as the outcome variable concern the effects of the predictor variables on the mediator. Because the model *F* tests were significant across analyses using both HC3 and HC4, we have not reported those results here. Instead, we have focused on the contrasting results for the individual predictors under the different approaches.