



Brave Faces, Hidden Fears: Intolerance of uncertainty predicts startle response in adolescent females with trauma exposure



THINK LAB
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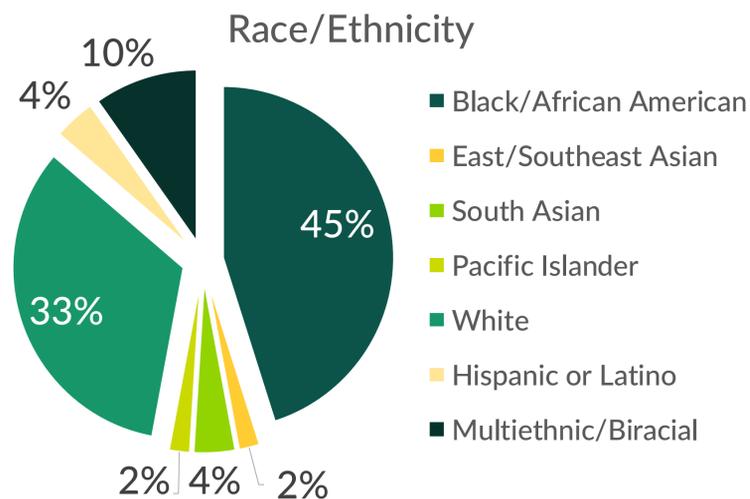
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Introduction

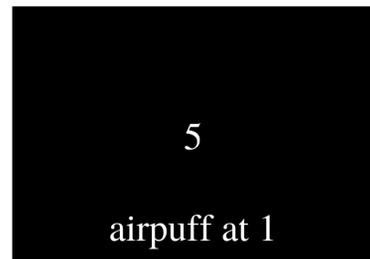
- Intolerance of uncertainty (IU) and trauma exposure each have links with altered physiological fear responses to unpredictable threat.
- The link between these variables is unclear, and research in youth is limited.
- The present study explores IU and trauma as predictors of startle response during the No-Predictable-Unpredictable (NPU) task in a sample of adolescents.

Methods

- 51 Detroit-area youth were recruited ($M \pm SD = 14.27 \pm 2.03$ years, 51% female, 39.2% trauma-exposed)



- Startle eyeblink reflex was measured via electromyography of the orbicularis oculi muscle during the N-, P-, and U-threat conditions.



P-Segment

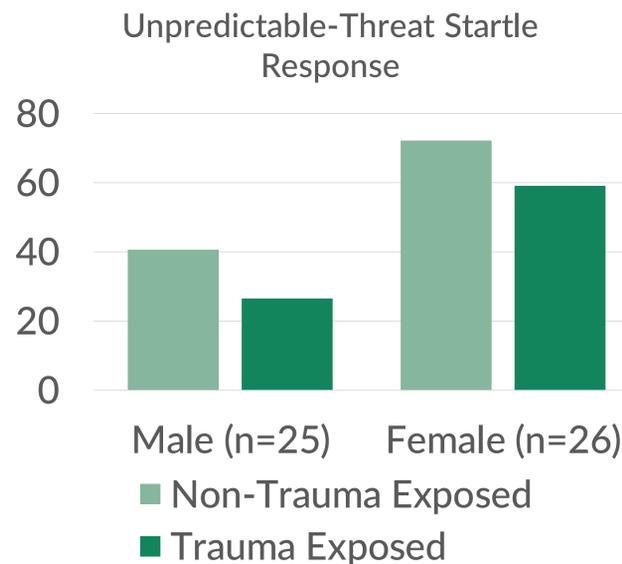


U-Segment

- Participants were administered white noise bursts in anticipation of a temporally predictable or unpredictable threat (i.e., air blast to the throat).
- Startle potentiation scores were calculated by the difference in average startle amplitude during the P- or U-condition minus the N-condition.

Results

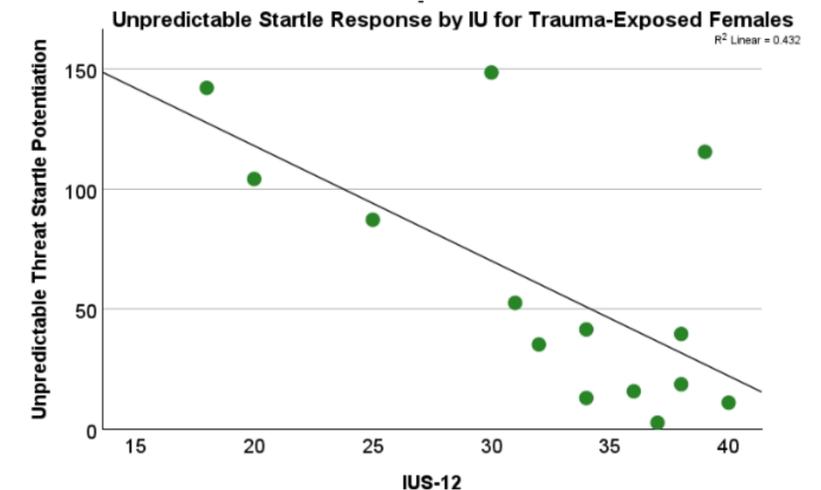
- Females demonstrated significantly higher startle response to both predictable ($t_{42} = 2.09, p = .043$) and unpredictable ($t_{45} = 2.41, p = .020$) threat.



- Females were significantly more likely than males to experience trauma, $X^2(1, N = 51) = 4.76, p = .029$.

	M	F	Total
No Trauma	19	12	31
Trauma	6	14	20
Total	25	26	51

- For trauma-exposed females only, higher IU predicted an attenuated startle response to unpredictable threat ($\beta = -5.26, p = .01$)



Conclusions

- Results suggest that higher IU in trauma-exposed female adolescents predicts an attenuated startle response that is specific to unpredictable-threat.
- Future research should seek to replicate in a larger sample with more trauma-exposed males.

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