Brain mechanisms underlying the impact of refugee trauma and stressors

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Abstract

Refugees face significant difficulties, including being exposed to conflict, human rights violations, persecution and ongoing uncertainty and stress in the post-displacement environment. These factors contribute to elevated risk for psychological disorders in refugee populations, including PTSD. While there are good neural models of PTSD generally, it is likely these models do not fully account for the context of forced displacement trauma and stress. It is therefore critical that specialised research be conducted to understand the brain mechanisms disrupted by refugee trauma and stressors. In her talk, Belinda will share key findings from a large neuroimaging research project conducted with refugees and asylum seekers living in Sydney Australia. Over the course of 3 years, over 120 refugees participated in a series of functional magnetic resonance imaging (fMRI) studies. First, she will present a study that demonstrates the specific effects of torture trauma exposure on intrinsic functional brain network connectivity. Second, she will share a study that shows that cumulative trauma exposure and post-migration stress have specific effects on the neural substrates of fear processing in refugees. Next, she will focus on two studies that examine the neural impact of specific post-migration stressors. In the third study, she will show that refugee visa insecurity disrupts default mode network functional connectivity. Finally, in the fourth study, she will demonstrate that separation from family affects attachment system buffering of emotion regulation brain activity in refugees. Collectively, these studies provide evidence of the detrimental and long-term impact of refugee trauma and stress on the brain, and have implications for informing new strategies to support refugees in their trauma recovery and resettlement.

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Biography of the Author

Dr. Belinda Liddell is a Senior Research Fellow in the School of Psychology at UNSW Sydney and the Deputy Director of the Refugee Trauma and Recovery Program. For the last 9 years, she has been conducting research that draws upon a neuroscience and psychological science framework to understand the biological, social and cultural mechanisms underlying the impact of refugee trauma and stress. She has published over 75 studies and her work is funded by the Australian Research Council and NHMRC. Belinda works closely with leading humanitarian and refugee service organisations including STARTTS, Australian Red Cross, Settlement Services International and International Committee of the Red Cross, to ensure her research is relevant and has significance for practice and policy. Belinda holds a PhD in Cognitive Neuroscience from the University of Sydney and has previously worked in Cambodia and Timor-Leste. She is interested in science communication and was one of the ABC Top 5 Scientists in 2018.