

PE1933/U: Allow the Fornethy Survivors to access Scotland's redress scheme

Petitioner written submission, 24 April 2024

The World's Largest Brain Study Uncovers Rewiring: a new study into how childhood trauma affects a child's brain – University of Essex, 2024

Our Legacy of Childhood Trauma – trauma that forever changes your world view now evidenced.

On this day, the Fornethy Survivors learned about a significant piece of **cutting-edge scientific research** conducted with hundreds of studies into brain development and childhood trauma¹.

The study looked at functional magnetic resonance imaging (fMRI) brain scans of both the traumatised and healthy brains of young people and then used artificial intelligence (AI) to re-examine hundreds of brain scans to identify patterns within the data. This meta-analysis, from world-wide research, looked for patterns in the data and found that two crucial areas (or clusters) of brain development were associated by historical traumatic experiences in childhood.

These were:

Executive Functioning Childhood trauma affects the ability to problem-solve, decreased memory activation causing difficulties in school, making mental tasks hard and affecting their decision-making abilities.

Affect-Regulation In the ability to understand their own bodies and in the forming of relationships – a disruption in self focus and a struggle with emotions, empathy, and reward processing.

The study findings states:

“During childhood, the human brain undergoes rapid development, which makes it vulnerable to the external world experienced by a growing child. Childhood trauma produces extreme stress on the brain and this can lead to significant changes such as depleted functioning and lasting structural alterations. From a physiological perspective, it has been documented that early traumatic experiences disrupt the overall course of neuro-development”

and goes on further to say:

“... fMRI studies have shown that the deleterious effects of childhood trauma on specific brain regions”.

The study also reveals further:

¹ BBC News: Essex University's AI brain study brings 'hope' to childhood trauma survivors - <https://www.bbc.co.uk/news/uk-england-essex-68424853>

“a potential pathway of influence for the development of anhedonia and demotivation symptoms”

and

“The type of trauma that a person experiences the age and pubertal stage when a child experiences trauma, and the extent of one’s stress, differentially impacts the brain”.

The hope in this research is the development of techniques that rewire these two parts of the damaged brain and rebuild a healthier brain and sense of self and functioning in the world.

We wish to draw this new information to the attention of the Committee and the First Minister/Deputy First Minister as we progress forward in our quest for recognition of the lasting effects of the legacy of our trauma and in our desire to be included in Scotland’s “renowned” redress scheme.

Please include these research findings in future discussions – proof of what we have been saying!

The study, [‘A Functional Magnetic Resonance Imaging Meta-Analysis of Childhood Trauma’ has been published in Biological Psychiatry Cognitive Neuroscience and Neuroimaging.](#)