PW01-170 - **THE STRESS-VULNERABILITY MODEL; HOW DOES STRESS IMPACT ON MENTAL ILLNESS AT THE LEVEL OF THE BRAIN….AND WHAT ARE THE CONSEQUENCES?**

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Background: The stress -vulnerability model is an extremely useful model for identifying and treating relapses of mental illness. We accept that human persons carry genetic and other predisposition to mental illness. However, the question arises as to how stress impacts on a person in order to cause mental illness to develop. Furthermore there arises the issue as to what other effects such stress has on the human body beyond the human brain.

Aim: To research and integrate the current literature in order to establish how stress impacts on the brain at the cellular level, and to establish whether there are other consequences for the human body brought about by the impact of stress on the human brain.

MethodLiterature Search.

Results: The present literature describes a complex set of interactions involving stress induces elevated levels of cortisol, immune responses, enhanced production of corticotrophin-releasing factor (CRF), glucocorticoid receptor tolerance thus impairing the negative feedback mechanism of the HPA axis, neurodegenerative changes in the hippocampus, and balance between trophic and atrophic factors within neurons, thus affecting neurogenesis and brain plasticity.

The poster explores the interrelationship between all these factors, and the genetic component which in large part constitutes the ´vulnerability´ part of the model.

Conclusion: We also show that the effects of heightened cortisol levels are not confined to the brain. but also cause metabolic problems including the 'Metabolic Syndrome'.

Such problems occur in many Psychiatric illnesses, including Depression, PTSD, as well as Schizophrenia.

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