

MEETING ABSTRACT

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Pertinent changes in adult brain neurobiology due to trauma

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Introduction

Contrary to the general feeling of safety and stability in contemporary western societies traumatic events arise by nature unrepentantly due to natural disasters, terrorism or criminal acts. People affected in events alter brain development in early ages and differentiate the structure and function of several areas in the adult brain.

Methods

We perform thorough research of main medical databases, and web search engines for relevant studies with related key words and scrutinize them, before concluding about appropriateness.

Results

There are important and complex alterations in neurobiological networks that are responsible of triggering defensive reactions of autonomic, immune and endocrine systems forming different aspects of posttraumatic stress disorder. Brain areas involved are thalamus, amygdala, hippocampus, neocortex, corpus callosum and different neurotransmitter systems are accordingly implicated.

Conclusion

The symptomatology of mental disorder is the aftermath of the individual trying to face extraordinary events that fundamentally alter the vision and interpretation of its existence in an environment where the unexpected is the rule and not the exception. Traumatic events put our secluded way of living in danger and have as a consequence the development of different neurobiological

responses on various brain circuits leading to the appearance and establishment of mental disorders.

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