

2023

ABSTRACT ВООК



University Clinic of Psychiatry | MPA



2nd

Thematic Conference on Dementia & Neurodegeneration



Institute for Alzheimer's Disease and Neuroscience



26th - 29th October Ohrid

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7th **Macedonian Psychiatric Congress**

University Clinic of Psychiatry



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Thematic Conference on Dementia & Neurodegeneration



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P-07/ Cognitive Behavioral Therapy (CBT) and Neuroscience: Integrating new and old idea

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Abstract

Introduction: In recent years, interdisciplinary research in the field of neuroscience has expanded our knowledge about neurobiological correlates of mental processes and changes occurring in the brain due to therapeutic interventions. The studies are largely based on non-invasive brain imaging techniques, such as functional magnetic resonance imaging (fMRI) and functional neuroimaging technologies of positron emission tomography (PET).

Objectives: The goal of this review paper is twofold. First, to bring coherence and integration to the broad field of Cognitive behavioral therapy (CBT) practice based on the constraints of neuroscience. This goal was articulated over 100 years ago but is one that can now be realistically envisioned due to advances in neuroscientific knowledge. The goal of our paper is also to delineate the mechanisms involved in optimizing the degree and duration of clinical improvement. We will introduce some key topics and describe a selection of findings from CBT-related research using tools from neuroscience.

Material and methods: A literature review, search, and evaluation of the available literature,

including old and contemporary publications on a referent basis and books was performed.

Results and conclusions:

Although CBT is an established and efficient treatment for a variety of common mental

disorders, a considerable number of patients do not respond to treatment or relapse after

successful CBT. Based on the findings and different approaches we will present how

neuroscience can offer novel perspectives to better understand: (a) the neurobiological

underpinnings of CBT, especially neuroplasticity, (b) cognitive activity contributes to

dysfunctional behavior and emotional experience through focusing, selective perception,

memory and recall, and characteristic cognitive distortion; on a neurobiological level, there is

a relationship between top-down and bottom-up regulation of unpleasant emotional states, (c)

how we can enrich CBT with neuroscience-informed techniques (augmentation of CBT), (d)

neuroscience and enduring changes (implications for CBT), implications why some patients

may respond better to CBT than others, thus paving the way for more personalized and effective

treatments. We hope that this will provide clinicians and clinical researchers with a brief and

comprehensible overview of the field.

Key words: CBT; Neuroscience; Neuroprediction; Personalized Psychotherapy

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