
Alexithymia is associated with Altered Top Down Control of Behavior

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Abstract

Alexithymia has gained increased attention as a possible vulnerability factor for a variety of medical and psychopathological disorders. Collectively, alexithymic facets have been shown to reflect deficits in the capacity to process and consciously experience emotions as well as to regulate emotional states through cognitive processes. Evidence supporting the view that alexithymia represents deficits in the top down control of cognitive-affective functions also comes from neuroimaging studies, revealing that during emotional contexts alexithymia is associated with altered activity in a brain network subserving executive and behavioral control. Response inhibition is the ability to suppress actions that are no longer behaviorally relevant and represents a key function of the human executive control system. To investigate the association between top down control of behavior regulation that reflects inhibitory control, i.e. response inhibition, and alexithymic features in healthy persons, the Stop Signal Task was used in positive, negative and neutral contexts. This task allows the indirect estimation of the capacity of behavior inhibition by calculating Stop Signal Response Time (SSRT). The results suggest that in a neutral context alexithymia is associated with a greater capacity of response inhibition. However, this capacity becomes more compromised when an emotional context is present. These findings underscore the relevance of altered inhibitory executive functions in alexithymia as a basic mechanism also for understanding its importance in different clinical populations.

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