**TÍTULO**

SOCIAL PAIN AND LIMBIC SYSTEM

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**RESUMO**

**Introduction:** From an evolutionary perspective the system alert to threats of social relations shows evidence of having been linked to physical pain, especially in the affective component, which includes the anterior insula and anterior cingulate cortex in the dorsal portion. **Literature Review:** A neuroimaging study examined the neural correlates of social exclusion and tested the hypothesis that the brain bases of social pain are similar to those of physical pain. Physical pain experience can be subdivided into two components, which rely on different neural substrates. These two components include: a sensory component, which codes for the discriminative aspects of pain and an affective component, which codes for the unpleasant aspects of pain. The affective, rather than the sensory, component of pain would be more critical for understanding feelings of social pain. Chronic pain and depression are common and often overlapping syndromes. Over 75% of patients with depression experience chronic or recurring pain. Similarly, 30-60% of chronic pain patients report significant depressive symptoms. Reduced hippocampal size has been related in teenagers and adults exposed to early-life stress, and also in depressed people. Alternatively, the vulnerability to depression might be increased by interaction between hippocampal size and early-life adversity; that might have a prominent effect on depression especially in individuals with a reduced hippocampal volume. **Conclusion:** The early-life adversity can interact with depression to induce changes in the hippocampus, being smaller hippocampal size related to depressed patients who experienced early-life adversity. In the same way, smaller hippocampus is a result of depressive illness, with greater decrease in size as the disease progresses.