Implicit emotional processing in fibromyalgia: an experimental study

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Abstract (max 250 words):

Background: Aberrant emotional processing is reported in fibromyalgia. However, this capability is generally measured through explicit measures, like self-report questionnaires and facial emotion recognition task. Instead, no previous research has investigated the implicit emotional processing in fibromyalgia.

Methods: Individuals diagnosed with fibromyalgia and matched healthy controls were enrolled. Individuals' capability to recognize the emotions of fear and anger was investigated through an implicit emotional recognition task grounding on the "redundant target effect": individuals respond faster when two identical targets are presented simultaneously rather than when presented alone. Reaction Times (in ms) and Accuracy (in percentage) were measured. In addition, the level of alexithymia was measured by asking participants to judge explicitly their ability to identify and describe emotions (TAS – 20).

Results: Individuals with fibromyalgia were less accurate and slower in recognizing the emotion of fear, when compared to controls. About the emotion of anger, the results were more controversial. However, the relationship with the level of alexithymia, when measured using a standard questionnaire, was not significant.

Conclusions: Difficulties in the implicit component of emotional processing emerged in fibromyalgia. We discussed our results taking in account the meaning of the emotion of fear in this clinical condition. We also proposed that the individual's capability to efficiently recognize an emotion might be more efficiently inferred studying the implicit behavior, rather than the subjective evaluation of one's own emotional processing capability.

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