



Today

Background: Sensory modulation dysfunction and pain

Pain in ASD: Quantitative findings

Pain in ASD: qualitative findings

Neurophysiology of pain in ASD

Q & A

From sensory and pain behavior to neurophysiology: quantitative and qualitative studies in autism

Objective

To better understand the pain perception in autism and its link to sensory alterations



From sensory and pain behavior to neurophysiology: Quantitative and qualitative studies in autism

Overview

Background

- The pivotal role of the sensory perception in everyday function
- Sensory modulation dysfunction and pain perception
- Pain in autism

Quantitative findings

SMD and pain in autism





















Sample distribution (N=151)

ASD n= 69 vs. Controls n= 82 Aged 18-50, sex-matched, No language barriers

Groups did not differ: • Wechsler Abbreviated Scale of (WASI-II) (verbal, performance, and full-scale) . >80

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- Take Home Messages
- The largest experimental pain study: Individuals with autism have a pro-nociceptive profile showing pain amplification
- \checkmark Neurophysiological responses are associated with the perceived pain
- \checkmark However, there is a gap in awareness and communication of the pain experience



- The final process in the pain experience is the social communication of pain, which may be observed in autistic behaviors (Craig 2015)
- Sub-grouping the ASD population based on SOR may help understand the individual autism severity expressed in daily difficulties and participation restrictions, guiding future precision medicine

