

Review of: "The Association Between Fibromyalgia, Hypermobility and Neurodivergence Extends to Families: Brief Report"

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Potential competing interests: No potential competing interests to declare.

Kelly C. The Association Between Fibromyalgia, Hypermobility and Neurodivergence Extends to Families: Brief Report. Qeios, February 27, 2023.

This pre-print analyzes the association among fibromyalgia, hypermobility, and neurodivergence in patients of a rheumatologic clinic and their relatives. The main finding, apart from the high prevalence of neurodivergence in patients with both fibromyalgia and hypermobility, was the presence of a significantly higher frequency of fibromyalgia, hypermobility, and neurodivergence in relatives.

This association (fibromyalgia, hypermobility, and neurodivergence) has been explored in some previous articles mostly in isolated patients/small series, focusing on instances of neurodivergence but also in muscle pain or hypermobility. Previous articles pointed out that these patients should have a multidisciplinary follow-up, with rheumatologists and psychiatrists. Some theories about the etiology have highlighted the association with low dopamine levels, while the author of the present pre-print suggests also gene clustering.

Regarding the form, the pre-print is very clear and organized, with pertinent references.

Suggestions:

1. Please inform in the abstract "hypermobility Ehlers-Danlos syndrome", instead of only "hypermobility"
2. Please explain if the children and grandchildren of the 13 index cases were at least 18 years of age, and compare them with the children and grandchildren of the control.
3. Please give the reference to the following sentence: "This is more often the case for females than males, and within trans and non-binary people, which may increase their psychological distress and promote anxiety "
4. Hypermobility can be associated with neuromuscular disorders, some of which can have neurodivergence (2,3). A neurological evaluation of these patients would be interesting.
5. Please include the power calculation description in the methods.

References

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2. Donkervoort S, Bonnemann CG, Loeys B, Jungbluth H, Voermans NC. The neuromuscular differential diagnosis of joint hypermobility. *Am J Med Genet C Semin Med Genet*. 2015 Mar;169C(1):23-42. doi: 10.1002/ajmg.c.31433. Erratum in: *Am J Med Genet C Semin Med Genet*. 2016 Jan;170A(1):285-6. PMID: 25821091.
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