



Letter

Gender differences in the presentation of fibromyalgia amongst children who have been maltreated

Joht Singh Chandan^{a,b}, Siddhartha Bandyopadhyay^c, Julie Taylor^{d,e},
Krishnarajah Nirantharakumar^{a,f,*}

^a Institute of Applied Health Research, College of Medical and Dental Sciences, University of Birmingham, B152TT, United Kingdom

^b Warwick Medical School, University of Warwick, Coventry, CV47HL, United Kingdom

^c The Department of Economics, University of Birmingham, B152TT, United Kingdom

^d School of Nursing, College of Medical and Dental Sciences, University of Birmingham, B152TT, United Kingdom

^e Birmingham Women's and Children's Hospitals NHS Foundation Trust, Birmingham, United Kingdom

^f Midlands Health Data Research UK & Institute of Applied Health Research, College of Medical and Dental Sciences, University of Birmingham, B152TT, United Kingdom

ARTICLE INFO

Article History:

Received 7 July 2020

Accepted 7 July 2020

Available online xxx

We thank Professor Martinez-Lavin for his kind opinion on our published work [1,2]. We agree that further understanding of gender differences in the presentation of physical and psychological illness is extremely important for children who have experienced maltreatment as it may influence risk prediction and subsequent management. Further exploration of this particular point is of interest as our previous work has demonstrated there are gendered differences in the initiation of medications used to treat illness amongst children who have been maltreated [3]. This is of note in this context considering the role of mental ill health in the aetiological pathway associated with fibromyalgia.

In our current study, when examining those without a pre-existing diagnosis of fibromyalgia, we noted that 300 patients exposed to childhood maltreatment were given a new diagnosis of fibromyalgia during the study's follow up time. Of those 300 patients, 269 were female (89.7%) and 31 were male (10.3%). Our findings correlate with Martinez-Lavin's findings suggesting a higher prevalence of female patients presenting with fibromyalgia compared to males. This finding has been replicated in other settings where the 1990 American College of Rheumatology (ACR) classification criteria (not used in our current study) are applied to diagnose fibromyalgia [4]. However, interestingly when using updated diagnostic criteria which do not

include the need to conduct tender point examinations the sex ratio begins to get closer to equal [4]. Therefore, we advise exploring this sex difference is needed in more cohorts which apply different diagnostic criteria.

Declaration of Competing Interest

None.

References

- [1] Martinez-Lavin M. Is there a gender difference in maltreatment-associated fibromyalgia. *EClinicalMedicine* 2020.
- [2] Chandan JS, Keerthy D, Zemedikun DT, Okoth K, Gokhale KM, Raza K, et al. The association between exposure to childhood maltreatment and the subsequent development of functional somatic and visceral pain syndromes. *EClinicalMedicine* 2020:100392. doi: 10.1016/j.eclinm.2020.100392.
- [3] Chandan JS, Thomas T, Gokhale KM, Bandyopadhyay S, Taylor J, Nirantharakumar K. The burden of mental ill health associated with childhood maltreatment in the UK, using The Health Improvement Network database: a population-based retrospective cohort study. *Lancet Psychiatry* 2019;6:926–34.
- [4] Häuser W, Ablin J, Fitzcharles M-A, Littlejohn G, Luciano JV, Usui C, et al. Fibromyalgia. *Nat Rev Dis Prim* 2015;1:15022.

DOI of original article: <http://dx.doi.org/10.1016/j.eclinm.2020.100468>, <http://dx.doi.org/10.1016/j.eclinm.2020.100392>.

* Corresponding author.

E-mail addresses: joht.chandan@nhs.net (J.S. Chandan), s.bandyopadhyay@bham.ac.uk (S. Bandyopadhyay), j.taylor.1@bham.ac.uk (J. Taylor), k.nirantharan@bham.ac.uk (K. Nirantharakumar).

<https://doi.org/10.1016/j.eclinm.2020.100469>

2589-5370/© 2020 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)