



Response to Letter to the Editor

“Evidence-Based” Needs to Be Based on Evidence—A Response to Giddon’s Letter Regarding Edwards et al, Is There an Association Between Lateralization of Chronic Pain in the Body and Depression?

Dear Editor,

We write in response to Dr. Giddon's recent letter¹ regarding the findings presented in our paper titled “Is There an Association Between Lateralization of Chronic Pain in the Body and Depression?”.² We appreciate Dr. Giddon's comments and enthusiasm for the “lateralization of pain” hypothesis.

Our published report contains the largest analysis on this topic to date. In response to Dr. Giddon’s concerns, we ran additional analyses controlling for age, sex, pain intensity, and number of body regions in pain, with no effect of laterality group (based on 4 different ways of determining laterality) on depression severity (P -values > .199). All models continued to demonstrate a strong association between a number of body regions (ie, the spread of pain) and depression (P -values < .001; corrected). The same was found for other available health status measures. Importantly, we did not find that pain was more frequent on one side of the body or the other. Prior literature is limited by small studies with most not assessing depression fully, and several studies reported null effects. Our newest publication² addresses existing limitations and our conclusions align with those reporting null effects (ie, no support for the lateralization hypothesis and its hypothesized association with psychopathology).

Orofacial chronic pain, which we excluded from our analysis, may have specific cases in which pain laterality may manifest. Indeed, a recent systematic review of trigeminal neuralgia indicated that the right side of the face was more commonly affected.³ However, a

conclusion of laterality as being rooted in psychopathology is speculative. While there might be more to learn on the topic, conclusions regarding causation rooted in psychopathology must be supported by empirical data. To date, those data do not exist.

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References

1. Giddon DB: RE: Is there an association between lateralization of chronic pain in the body and depression? Not so fast to dismiss lateralization of pain responses by Edwards et al. *J Pain* 2024. <https://doi.org/10.1016/j.jpain.2024.104570>

2. Edwards KA, Lii T, Schouten TD, *et al.* Is there an association between lateralization of chronic pain in the body

Lateralization of Chronic Pain in the Body and Depression and depression? *J Pain* 2024. <https://doi.org/10.1016/j.jpain.2024.02.004> 104490

3. Teshome AA, Walle Ayehu G, Ashagrie BK, *et al.* Systematic review on the frequency of occurrence in nerve branches and the side of the face involved in trigeminal neuralgia and its clinical implication. *Front Neurol* 15:1362602