



Authors response to ‘Tendential and unscientific opinion’ letter-to-the-editor by Dr. Marc Wuttke MD, PhD

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The authors of this letter are aware of a recent ‘Letter to the Editor’ in response to our recently published editorial: Olson KA, Clewley D, Milne, N et al. (2024): Spinal manipulation and mobilization for pediatric conditions: time to stop the madness. *J Man Manip Ther.* 32(3):207-210. We are aware that this letter was published by the *Journal of Manual & Manipulative Therapy* and makes several of the same points as the Letter to Editor by Saedt [1] that we responded to, point-by-point, with a response published in the same journal [2]. We refer to our previous response letter that provides a rationale for why the inclusion of articles by Sacher et al. [3–5], published after the completion of our scoping review, would have had no significant impact on our findings [2].

The position statements developed by the taskforce on pediatric spinal manipulation made it clear that based on the insufficient evidence of effectiveness, the potential for harm, and the lack of biological plausibility, spinal mobilization and manipulation are not appropriate for infants or for the treatment of non-musculoskeletal pediatric conditions [6].

Our position statements are intended to create a paradigm shift; an important change that emerges when the usual way of thinking about doing something is challenged and replaced by a new and alternative approach. After the accumulation of evidence from our scoping review on benefits and harms [7], systematic reviews of the psychometrics of clinical outcome measures used in pediatric manual therapy research [8,9], a Delphi survey [10], and consensus meetings for position statement development [6], the resulting findings appear to challenge clinical perspectives and status quo of practitioners who practice ‘manual medical therapy’ on infants and to some degree children.

We acknowledge that there will be further emerging evidence. However, minimal therapeutic change needs to be balanced with the potential for or risk of harm. Further research is needed to gather evidence to report

on harms at a national and multinational level in the regions of the world where spinal mobilization and manipulation of infants continues, or practitioners could follow the recommendations of our position statements and discontinue spinal mobilization and manipulation for infants.

Authors such as Koch [11] and Saedt [12] report that a high incidence (53% and 18%) of infants treated in their cohort studies with upper cervical mobilization techniques experienced ‘vegetative’ responses. Based on these two cohort trials, how many healthy babies need to be treated for one to have a mild adverse effect is depicted in [Figure 1](#) with a range from 1 in 2 to 1 in 5 [11,12]. Furthermore, Koch [11] states that 25% of the infants experienced apnea and warns that ‘mechanical irritation’ (i.e. mobilization or manipulation) to an infant’s suboccipital region could be a potential cause of sudden infant death. A fatal case study of a 3-month-old infant who received cervical manual therapy that included ‘forced active rotation and head retraction’ resulted in reflex apnea and profuse sweating (i.e. vegetative response) followed by massive and fatal brain edema due to ‘bleeding into the adventitia of both her vertebral arteries at the level of C1 prompting ischemia of the caudal brainstem with subarachnoid hemorrhage’ [13].

The author of this ‘Letter to the Editor’, Marc Wuttke, MD, PhD, questions the ‘motivation behind publication’ of our work. Our motivation is to assure safety of infants and young children who cannot advocate for themselves and to protect the safe, ethical practice of spinal manipulation and mobilization throughout the lifespan by encouraging further research on the use of these interventions for the treatment of older children and adolescents with neck and back pain. When authors such as Saedt [12] refer to these vegetative responses as mild side effects and advocate for the ongoing use of these procedures [1], we look at this as ‘madness’ and feel that we must advocate for the protection of infants and young children from potential harms that could potentially be life-threatening. Especially when safe, evidence-based alternative interventions are available for conditions such as torticollis that include parent-infant,

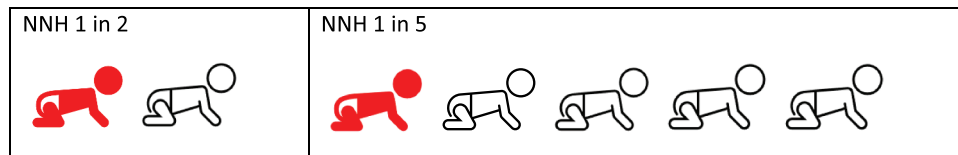


Figure 1. The safety profile from two cohort studies identifies the potential mild “vegetative” response to be 1 in 2 or 1 in 5 infants. The risk rate for serious adverse events is unclear.

child-based play and positioning guided by pediatric physical therapists [14]. This is why we challenged the status quo by stating it is ‘time to stop the madness’.

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Jan Pool affirm that they have no financial affiliation (including research funding) or involvement with any commercial organization that has a direct financial interest in any matter included in this manuscript.

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