

# *Review of:* **Efficacy of pediatric integrative manual therapy in positional plagiocephaly: a randomized controlled trial**

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Reviewed by  
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Original article by: Pastor-Pons I, Lucha-López MO, Barrau-Lalmolda M, Rodes-Pastor I, Rodríguez-Fernández ÁL, Hidalgo-García C, Tricás-Moreno JM.

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Text Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8180102/> (accessed 29/6/2022)

The abstract summarizes the articles major points of the study.

The background gives a detailed description of risk factors for developing positional plagiocephaly (PP) as well as the goals of treatment.

This is an area of study in its infancy and well-designed studies are needed to assess the effects of manual therapy on PP.

In the measured parameters, there is no consideration of the inferior to superior length of the cranium. This is particularly affected in the breech baby where there is a relative flattening of the cranium.

It would be interesting to know what the physiotherapists who are conducting the study have for education within the field of cranial work for infants. There are no details regarding their competence other than their extended study. The authors articulate well the purpose of their study and maintain cohesion throughout. The title is concise and appropriate.

The authors make the statement that it is hypothesized that pediatric manual therapy is more effective in improving plagiocephaly than repositioning the infant complemented with sensory/motor training. This is not referenced as it would be interesting to know who is hypothesizing? What is the motivation for intervention? This is not mentioned and seems necessary to outline the goals of treatment by detailing the benefits of reducing the asymmetry caused by plagiocephaly. The author assumes here that that there is a benefit to treatment.

The design and methods the authors use work well to see the changes following a treatment period comparing the control and treatment group. The methods describe the basic concepts of the techniques used and refer to original texts for reference. These may not be available for everyone therefore it may make it difficult to duplicate the study.

The statistical methods seem appropriate, and there do not appear to be errors in calculations or repeated data. The literature cited supports the statements made by the authors.

As a randomized control study, the parameters are narrow to measure a specific change so not all the cranial and facial distortions of plagiocephaly are included. This is cited as a limitation. Perhaps more of these can be addressed in future studies.

Manual therapy is being compared to helmet therapy and what is not mentioned is that the manual therapy was one treatment session a week for a period of 10 weeks while the helmet therapy is usually one year for 22 hours a day. The helmet is not always tolerated due to skin reactions, it is quite warm during the summer and often develops an offensive odor. There are challenges to complying 100 percent with the helmet. An area of future study would be to instruct parents on one or two molding techniques to be performed at home for a 10-week period in combination with the weekly visits to see if this influenced outcomes.

This is an important study as it addresses a conservative aspect of care for a problem which has become more prevalent due to the back to sleep campaign.