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Cover Letter

24th June 2020

The Editors-in-Chief
Midwifery Journal

Dear Editors,

On behalf of the authors, I am writing to submit our letter to the editor entitled, " Hands up if you do not understand Hands on" by Margarita Manresa, Vladimir Kalis, Renau de Tayrac, Jan Willem de Leeuw, Katariina Laine, Sari Räisänen, Khaled M Ismail, to be considered for publication in the Midwifery Journal.

We have read with interest the systematic review and meta-analysis article by Huang et al., entitled "The effects of hands on and hands off/poised techniques on maternal outcomes: a systematic review and meta-analysis". The authors raise an issue that is very relevant to current obstetric practice, which is how to attend to the birth of the fetal head and shoulders at the end of the second stage of birth in order to mitigate the risk of complex perineal trauma and its consequences. However, we have several concerns about the conduct and hence the conclusions of this review.

I would like to confirm that all authors associated with this letter approve and support its submission to the journal

Yours Sincerely,

Margarita Manresa
RNM
Specialist Perineal Midwife
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Title: Hands up if you do not understand Hands on

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Disclaimer:

The authors are part of the perineal trauma PEERS group. The group is actively involved in running, not for profit, practical training in the management of childbirth-related perineal trauma and its prevention. KI was the senior author on a systematic review of a similar topic (Reference 7). KI is partly funded by project No. CZ.02.1.01/0.0/0.0/16_019/0000787 “Fighting INfectious Diseases – FIND”, awarded by the Ministry of Education, Youth and Sports of the Czech Republic, financed from The European Regional Development Fund.

Sir,

We have read with interest the systematic review and meta-analysis article by Huang et al(1) on the effects of hands-on and hands off/poised techniques on maternal outcomes. The authors raise an issue that is very relevant to current obstetric practice, which is how to attend to the birth of the fetal head and shoulders at the end of the second stage of birth in order to mitigate the risk of complex perineal trauma and its consequences. However, we have several concerns about the conduct and hence the conclusions of this review.

First, there is lack of clarity in the manuscript why several important studies were not included, namely, the Scandinavian cohort studies(2–5) and a British randomized study(6). All these studies, unlike several of the RCTs included in the review, were designed with the primary aim of assessing the impact of hands-on technique on maternal outcomes with clearly described and standardized maneuvers. We believe that had these studies been included, the findings of this review would have been very different. Indeed, this view is supported by systematic reviews related to the topic that have been recently published(7,8)

Second, the hands-on technique has been described in several of the included primary studies as the *Midwife guarding the perineum with the thenar muscle in the right palm* or as pressure applied on the inner and upper perineum. We find this quite concerning because neither of these descriptions qualifies for an effective hands-on technique for manual perineal protection (MPP). Indeed, based on stereo-photogrammetric and computational biomechanical studies MPP's effect is mainly achieved by a reduction in the transverse perineal tension achieved by applying side-to-side pressure, thus, leaving very few effective MPP techniques.(9–11) Undoubtedly, when assessing the effectiveness of an intervention, it is imperative that the intervention assessed is correct

in the first place. Therefore, the type of maneuvers used should have been one of their main inclusion/exclusion criteria or, at least, the review authors should have performed a sub analysis based on this.

Third, Huang and colleagues hypothesized that hands-on technique increases pressure on the fetal head to keep flexion and thereby impeding '*the natural process of labor and increasing the pressure on the posterior perineal tissues'*. We find this hypothesis very confusing because an effective MPP aims to control the speed of head expulsion (not to maintain flexion head) by the non-dominant hand, and to facilitate fetal head *extension*, not flexion, by the dominant hand. This point relates to our previous comment about the importance of accuracy of the technique. Furthermore, the authors went as far as associating MPP with perineal ischemia which is not plausible for an intervention that, if correctly performed, happens over a very short period of time [Mean 13.6 ± 8.2 seconds](12)

Finally, we disagree with the dangerous claim by Huang et al. that there is consistency of evidence for an association between episiotomy and obstetric anal sphincter injuries (OASIs) without considering the overwhelming evidence of the protective effect of mediolateral and lateral episiotomy on OASIs risk(13–18) We appreciate that some other types of episiotomies might increase the risk of OASIs, nonetheless, such studies should not have been included otherwise the review is limited by confounder bias.

It is for the above reasons that we believe that the findings of this review as they stand, are misleading to clinicians and hence unsafe to women.

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*Supplementary Material

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