Title - Re: A Comment re: Heo, J. S., Kim, E. K., Kim, S. Y., Song, I. G., Yoon, Y. M., Cho, H., ... & Kim, H. S. (2021). Direct swallowing training and oral sensorimotor stimulation in preterm infants: a randomised controlled trial. *Archives of Disease in Childhood-Fetal and Neonatal Edition*.

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Sir,

We were interested to read Heo et als' well designed study where infants were allocated randomly to control, swallowing therapy (ST) or sensorimotor oral stimulation + swallow therapy (SOMST) groups. Whilst outcomes are impressive in reducing neonatal stay, we do have some concerns. It was interesting to note that the ST group did not progress as well as the SOMST group.

This is surprising given that in Lau & Smith's (1) study infants receiving ST progressed to independent oral feeding aged 36.6 ± 0.5 PMA in comparison with infants in Heo's SOMST group who were independent oral feeders at 37.0 ± 0.5. Incidentally, Lau & Smith (1) initiated their intervention when infants were 34 weeks PMA, in contrast with Heo et al (2021) who began their programme earlier, at 32 weeks PMA. As swallowing develops competence before sucking, it would be anticipated that those infants who have swallow stimulation at an earlier age might benefit more. Due to the different developmental onset of function between swallowing and sucking, perhaps "swallow therapy" should be a pre-oral preparatory feeding form of intervention, administered alongside developing infant behavioural responses and early communication signs before implementing oral feeding trials (2). Although a Developmental Care (DC) nurse is mentioned and DC is discussed as highly valuable at the end of the paper, the actual environmental context the study has been undertaken in is not clear. Occupational Therapists, not parents carried out the programme. Although allied health roles vary, it is of great concern that a speech and language pathologist was not available to consider any pharyngeal problems, and no parents were involved developing both confidence and competence when learning to care for their infant. Ten infants across all three groups did not complete the programme due to respiratory problems, and given the stringent exclusion criteria already in place, this should alert neonatal professionals to the fact that even though a preterm infant may be "straight forward" medically, progression with oral feeding may not be predictable.

Preterm infants are at high risk of developing persistent feeding problems, leading to long term eating and drinking difficulties. In addition, determining when infants are ready to start oral feeding trials can be a complex process involving many factors including physiological maturity, oral readiness signs, etc. Coregulation between the infant and feeder during early feeds may require careful assessment and can have an impact on progress (3). Parents need to be considered and included, and predictably find the neonatal environment difficult and challenging (4). In our view, approaches such as non-nutritive sucking, for example, often only superficially address an infant's early feeding needs. There is still much we need to do to improve the range of interventions to support preterm infant feeding, but they must be framed within a DC and parent context.

Future research that investigates implementing oral feeding for preterm infants needs to replicate clearly the supportive neonatal environment, and we look forward to these emerging studies.

References

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Author contribution

Professor Celia Harding and Siew – Lian Crossley SLP contributed equally to the letter.

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Competing interests

None declared.

Patient consent for publication

None required.