Erratum

Evaluation of paediatric chest percussion

K.J. Hughes, H. Shannon and H.H. Fleming

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The authors wished to clarify the results published in the original abstract. The correct version is given here.

Abstract

Aims: This study aimed to investigate the prevalence of percussion use, the forces and rates of percussion applied by paediatric physiotherapists, the effects of therapist factors on the applied forces and rates, and to establish the inter and intra-rater repeatability of hand versus cup percussion.

Methods: Given the scenario of a two month old infant with retained secretions, physiotherapists applied percussion to a paediatric resuscitation mannequin, using hand and cup percussion, in a randomised order. The protocol was then repeated in the reversed order.

Results: Sixteen physiotherapists participated, 56.2% (n = 9) of whom used percussion at least once per week. Mean (SD) peak forces of 24.4 N (7.9 N) and 16.7 N (3.4 N), and rates of 1.96 Hz (0.65 Hz) and 2.05 Hz (0.80 Hz), were applied using hand and cup percussion respectively. Therapist factors did not significantly affect rate or force; however significant positive correlations were found between therapists’ rate of technique and preference for technique. Compared to hand, cup percussion had significantly greater intra-rater repeatability (p<0.005). The percussor cup provided the more consistent technique across two separate occasions.

Conclusions: Physiotherapists have greater control over percussion when using the percussor cup. This has implications for teaching and the development of evidence-based guidelines.

Keywords: Chest physiotherapy, paediatric, measurement, percussion