
POSTER ABSTRACT**Parents as a vital part of an integrated care pathway in plagiocephaly prevention and management in infants**1st Asia Pacific Conference on Integrated Care, Brisbane, 06-08 Nov 2017Amy Leung¹, Allison Mandrusiak², Pauline Watter², John Gavranich³, Leanne Johnston²

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Introduction: Nearly one in three infants may develop plagiocephaly (a flat spot on the skull) by the age of 2-3 months (1). If significant, plagiocephaly is almost impossible to reverse and it can be associated with developmental and musculoskeletal problems. This condition can be prevented or treated if detected early. Infant head preference is reported to be a risk factor for plagiocephaly. Parents are an essential part of the care for their infant, yet in the literature parents' report of infant head preference and their practice of prevention strategies have not been considered in plagiocephaly prevention. The aims of this study were to verify parents' role in identifying infant head preference and to examine the impact of parent practises in infant positioning on the development of plagiocephaly.

Theory and methods: Healthy term infants and their parents were recruited. Clinician-measured and parent-reported infant head preference, and parent practices of infant head and body positioning data were collected at 3, 6 and 9 weeks of age. Plagiocephaly was measured at 9 weeks.

Results: 94 parents consented for their infants to participate. In infants who had parent-reported head preference at 3 weeks were observed clinically to have stronger head preference ($p < 0.03$), and there was a higher rate (41%) of plagiocephaly compared with 16% in other infants ($p = 0.015$). In infants whose parents did not identify any head preference were observed clinically to have less head preference ($p < 0.05$). Plagiocephaly was associated with back sleeping time at 6 weeks and parent practise of passive head re-positioning at 9 weeks ($p < 0.001$, $r^2 = 0.25$). Tummy position was not associated with plagiocephaly. More midline head orientation was associated with parents alternating their infant's head position ($p = 0.036$, $\rho = 0.18$). More symmetry in head turning was associated with more time spent in side-lying position ($p = 0.013$, $\rho = 0.13$).

Conclusions and discussions: Parent practices of infant positioning appear to impact early head orientation and plagiocephaly development. Early parent-reported infant head preference is an indicator for further professional assessment and review. A Plagiocephaly

Prevention framework and a Screening Pathway have been developed to help shift historical practices of clinical care in infants at risk or with plagiocephaly.

Lessons learned: This study proved that parents can identify their infants who are at risk of developing plagiocephaly. The results provide evidence to develop a new integrated care pathway by including parents in a contemporary integrated care approach (2) to facilitate quality healthcare service which will make a difference for infants and their families.

Limitations and future research: Further research is warranted to investigate the effectiveness of the proposed integrated care pathway.

References:

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