TITLE OF WRITE-UP: Early intervention starting in the neonatal nursery to improve child development

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COMMENTARY

Infants born very preterm (<32 weeks' gestation) are at heightened risk of adverse neurodevelopmental outcomes.(1) Interventions to improve these vulnerable children's outcomes should ideally start in the neonatal period and focus on supporting the family unit to promote child development.(2)

In their recent study, Colditz and colleagues report the findings of an appropriately powered, randomised controlled trial of the Baby Triple P for Preterm Infants (3), compared with care as usual.(4, 5) The Triple P approach aims to reduce child behavioural problems by supporting the parenting relationship. This Triple P is distinct from van Os and colleagues "Triple P study" of progesterone as a preventative of preterm birth.(6)

The intervention did not yield benefits for the primary outcome of child behaviour at 2 years' corrected age. This was a surprising finding given the nature and history of the Triple-P intervention. The authors note that floor effects on the primary outcome measure, the ITSEA, may have limited sensitivity to identify any effects. For instance, the mean scores on the ITSEA subdomains were at least -0.5SD from the normative mean in both groups, suggesting the overall rate of problematic behavioural in the sample was low. In addition, the authors note that the content regarding child behaviour was not delivered at the developmentally appropriate time for parents to apply this information immediately. After the completion of the initial 8 sessions, families engaged with the telephone support offered around 58% of the time. Thus, the interval between the delivery of this aspect of the intervention and the final outcome measurement may have contributed to a loss of efficacy. However, the benefits seen for cognitive, motor, and some aspects of communication development are encouraging.

Although no benefits were found for child behaviour outcomes, this study has provided some promising evidence about the power of supporting parents in caring for their vulnerable preterm infants from the start of their parenting journey. The effect size on motor development is higher than reported in the Cochrane review of early developmental interventions (motor scale development quotient [DQ] standardised mean difference [SMD]: 0.10, 95% CI 0.01 to 0.19; p value = 0.03; 12 studies; 1895 participants), whilst the

effects on cognitive outcomes are slightly lower (0.32 SMD DQ; 95% CI 0.16 to 0.47; p value < 0.001; 16 studies; 2372 participants).(7) Longer-term follow-up of such interventions will be crucial in determining the persistence of any benefits to children and families. In addition, some families may benefit more than others from different kinds of interventions,(8) and the factors that predict intervention success should be investigated to ensure interventions are most efficiently provided.

URL LINK: URL TO THE FULL REVIEW ON THE EBNEO WEBSITE

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CONFLICTS OF INTEREST

None

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