



Infants with Low Birth Weight: Early Child Stimulation, Linear Growth, and Neurodevelopment

Kamogh Zan Ane*

Department of Pediatrics, CHU Yalgado Ouedraogo, Ouagadougou, Burkina Faso

ABOUT THE STUDY

The foundation for brain development is the first 1000 days, or from conception to 24 months of age. The developmental pathways of children may be significantly shaped by both negative and positive experiences during this time. In comparison to their peers who were born with normal birth weights, children who were born with Low Birth Weights (LBW) are more likely to experience linear development failure, cognitive and motor deficiencies, worse academic performance, and behavioral issues. Childhood cognitive performance has been proven to be inversely correlated with linear growth failure throughout the first two years of life. Strong evidence supports the idea that a child's development can be aided by a positive home environment, which includes opportunities for early learning and responsive parenting.

The relationship between linear growth and the quality of stimulation and responsive caring at home and the associated cognitive, motor, and linguistic scores is less well understood. A nurturing family environment reduced relationships between linear growth and the development of fine motor skills and receptive language, according to research using a sample of 513 newborns from rural India. Similarly, in the context of a high-quality home environment, another study from rural Vietnam failed to find any connections between linear growth and child development. These results suggest that children with low Length-for-Age Z scores (LAZ) can develop developmental skills at the same rate as their peers in the context of a nurturing and educational environment.

Recent research on newborns from Malaysia and Jamaica, in

contrast to these findings, revealed no evidence of a substantial effect of the quality of the family environment on the relationship between LAZ status and cognitive outcomes. More research is needed to determine how home environment and linear growth combine to affect developmental outcomes, especially for the vulnerable group of LBW newborns. Further research is needed to determine whether a moderate to high-quality home environment can shield LBW infants with growth deficits from receiving poor development scores in a socioeconomically constrained environment. It also needs to be determined whether stimulation has a different impact on developmental outcomes depending on whether the LBW infant is stunted or not.

Regarding the use of the P-value to denote the presence of an interaction, there is a lack of agreement. While some researchers advocate sticking with the standard P-value of 0.05, others argue that because many epidemiologic studies typically have limited power to test for interactions, relying exclusively on this criterion for evaluating interactions may be deceptive and may miss significant effect changes. In light of this, it is recommended that when evaluating tests of interaction, the type 1 error rate be raised to 20%. Additionally, it's possible that kids with slower linear development or shorter achieved lengths at 6 months of age, or rather the causes of such growth stalling, may have less stimulation at home, as determined by process 6 months later. Another drawback is that home stimulation is only measured at one time point, perhaps at 12 months. We also accept that as this is an observational study, unmeasured confounding may have an impact on the findings.

Correspondence to: Kamogh Zan Ane, Department of Pediatrics, CHU Yalgado Ouedraogo, Ouagadougou, Burkina Faso, E-mail: zananemogh@gmail.com

Received: 01-Sep-2022, Manuscript No. CMCH-22-18382; **Editor assigned:** 05-Sep-2022, PreQC No. CMCH-22-18382 (PQ); **Reviewed:** 19-Sep-2022, QC No CMCH-22-18382; **Revised:** 26-Sep-2022, Manuscript No. CMCH-22-18382 (R); **Published:** 03-Oct-2022. DOI: 10.35248/2090-7214.22.19.426.

Citation: Ane KZ (2022) Infants with Low Birth Weight: Early Child Stimulation, Linear Growth, and Neurodevelopment. Clinics Mother Child Health. 19:426.

Copyright: © 2022 Ane KZ. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.