



EDITORIAL

Environment and development[☆]

Ambiente e desenvolvimento

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The child is a being undergoing constant development, both somatic development, with the differentiation of various organs, as well as neuropsychomotor development, with psycho-emotional differentiation.

Development and environment are closely related; currently, several epigenetic phenomena are known to result from the modification of gene expression due to environmental influence.

The environment in the very early phases of life influences the child's health. Recent evidence reinforces not only an environment rich in motor and global attention stimuli for the child, but, specifically, the continuous and early use of expressive language by parents with their children promote the achievement of better cognitive performance, especially in more vulnerable populations.^{1,2}

The effect of nutritional quality on growth has been conceptually known for many years, but the influence of the intestinal environment on the brain and the mechanisms involving the new concept of neuronutrition are recent. The intrauterine environment, type of maternal diet, type of delivery, gestational age at birth, and the presence of breastfeeding modulate the intestinal microbiome and are determinants of health or disease.³⁻⁵

This supplement aims to present the important topics of environmental interaction and development in child health, inviting the scientific community to plunge into the reading of these articles.

Conflicts of interest

The author declares no conflicts of interest.

References

1. Roberts MY, Kaiser AP, Wolfe CE, Bryant JD, Spidalieri AM. Effects of the teach-model-coach-review instructional approach on caregiver use of language support strategies and children's expressive language skills. *J Speech Lang Hear Res.* 2014;57:1851-69.
2. Morgan C, Novak I, Dale RC, Guzzetta A, Badawi N. GAME (Goals-Activity-Motor Enrichment): protocol of a single blind randomized controlled trial of motor training, parent education and environmental enrichment for infants at high risk of cerebral palsy. *BMC Neurol.* 2014;14:203.
3. Keunen K, van Elburg RM, van Bel F, Benders MJ. Impact of nutrition on brain development and its neuroprotective implications following preterm birth. *Pediatr Res.* 2015;77:148-55.
4. Sherman MP, Zaghouani H, Niklas V. Gut microbiota, the immune system, and diet influence the neonatal gut-brain axis. *Pediatr Res.* 2015;77:127-35.
5. Heberling C, Dhurjati P. Novel systems modeling methodology in comparative microbial metabolomics: identifying key enzymes and metabolites implicated in autism spectrum disorders. *Int J Mol Sci.* 2015;16:8949-67.

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