Water, sanitation, and hygiene (WASH), environmental enteropathy, nutrition, and early child development: making the links


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There is scarce research and programmatic evidence on the effect of poor water, sanitation, and hygiene (WASH) conditions on early child cognitive, sensorimotor, and socio-emotional development. Furthermore, many common WASH interventions are not specifically designed to protect babies in the first three years of life, when gut health and linear growth are established. The authors review evidence linking WASH, anemia, and child growth, and highlight pathways through which WASH may affect early child development, primarily through gut inflammation, stunting, and anemia.

In this paper, the authors argue that poor hygiene, resulting in microbial ingestion, is a risk factor for poor Early Childhood Development (ECD). They propose that the concept of WASH is broadened and considered an aspect of child nutrition and development interventions, not simply the sum of toilets, caregiver hand washing and water purification. They suggest the concept of ‘baby WASH’ – the goal being to interrupt the key fecal-oral vectors of babies’ hands and hand-to-mouth activity, paying attention to animal feces as well as human feaces. Programmatically, baby WASH interventions require baby hand washing at key times and creation of a hygienic and protective play environment, in addition to hygienic infant feeding and household hand washing and sanitation interventions. The authors advocate for baby WASH to be an additional component of ECD programmes. Finally, the authors highlight the need for further multidisciplinary research on the link between WASH and ECD.

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