INTRODUCTION

• Environmental Enteric Dysfunction (EED) refers to an incompletely defined syndrome of inflammation, reduced absorptive capacity, and reduced barrier function in the small intestine.
• It is widespread among children and adults in low- and middle-income countries.
• EED is asymptomatic.
• There is no known treatment for EED.

EED has been associated with: Pneumonia; Diarrhea; Undernutrition, etc.

OBJECTIVE

The objective of this systematic literature review is to evaluate the impact of Water, Sanitation, and Hygiene (WASH) interventions on EED on children in developing countries.

METHODS

• Database searched: Scopus, PubMed, and the reference lists of included studies were searched for all studies published in English.
• Study Selection:
  • Included studies that used laboratory methods to diagnose EED,
  • focused on children aged from 0 to 18 years,
  • Had a WASH interventions and conducted in in low- and middle-income countries.

RESULTS

The four studies found a benefit of WASH intervention for reduced EED:

• Safe child fecal disposal reduce the risk of EED - Marie George et al.
• Clean household environment is associated to a lower EED Prevalence - Lin et al
• Improved Fecal Sludge Management is associated to a lower risk of EED - Berendes et al.
• Having a toilet is associated to a lower risk of enteric infection - Yakubu et al.

CONCLUSIONS

• According to the finding of this review WASH interventions could be a part of the solution.
• Additional studies are needed to determine which intervention could prevent EED in the most effective manner.