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A Systematic Review of Maternal Dietary Intake and its Association with Childhood Stunting

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Abstract

The first 1,000 days of a child's life is a critical period of development in preventing childhood stunting. Despite various intervention programs, the global prevalence remains high. Maternal nutrition during pregnancy and exclusive breastfeeding plays an important role in infant development; thus, a systematic review of the relationship between maternal dietary intake and childhood stunting was conducted. The Web of Science, Scopus, PubMed, and Google Scholar electronic databases were used. Articles related to maternal nutrition and supplement intake with children's anthropometry data were included. Eleven studies met the inclusion criteria and seven were included after quality assessment. The studies were reviewed thematically as the statistical analysis was not possible due to data heterogeneity. The Appraisal Tool for Cross-Sectional Studies (AXIS) and Critical Appraisal Skills Program tools were used to assess the quality of the included studies. The findings demonstrated that pregnant women need to eat a diverse diet with the inclusion of at least five food groups to fulfill the nutritional requirement. Daily protein intake between 0.8 and 1.1g/kg body weight is recommended for positive birth weight and height outcomes. Supplementation of vitamin A, vitamin C, iron, zinc, vitamin D, and calcium, was also shown to improve pregnancy outcomes. However, future studies should consider confounding factors such as hygiene level and clean water availability to determine the transparent effect of nutrition on childhood stunting. More longitudinal studies are required to ascertain the relationship between maternal dietary intake and childhood stunting, especially in Malaysia © 2023,IIUM Medical Journal Malaysia. All Rights Reserved.


Author keywords

Childhood Stunting; Exclusive Breastfeeding; Maternal dietary intake; Nutrients; Pregnancy

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