Nutrition counseling may improve some maternal and infant health and behavioral nutrition outcomes, but more high-quality studies are needed

A balanced diet during pregnancy is vital for women’s health, positive pregnancy outcomes, and proper fetal growth and development. The World Health Organization (WHO) recommends nutrition counselling as part of regular antenatal care contacts to improve nutrition practices and health outcomes.

Two-way interactive nutrition counseling involves discussions and shared decision-making between patient and provider. Our review found that this approach for nutrition counseling has a positive effect on some maternal outcomes but not others.

What is this review about?
Poor maternal nutrition is prevalent among pregnant women in low- and middle-income countries (LMICs). Nutrition deficiencies are strongly associated with maternal and infant health complications. This review aims to identify and synthesize the evidence for the effects of nutrition counseling on pregnant women living in LMICs on maternal infant and child behavioral, nutritional, and health outcomes.

What studies are included?
Eligible studies had to be randomized controlled trials (RCTs), non-randomized controlled studies, controlled before-after studies, or interrupted time series studies evaluating the impact of nutrition counseling compared to standard care among pregnant women with no pregnancy-related complications living in LMICs.

Fifty-two studies were included in the review. Of these, 28 reported outcomes of interest. All the studies compared nutrition counseling to standard antenatal care. Studies were conducted mainly in Asia (28 studies) and Africa (8 studies).

What are the main findings of this review?
Nutrition counseling may improve dietary caloric intake, protein and fat intake, and gestational weight gain within health recommendations and may reduce hemorrhage during post-delivery.
Little to no effect was found in reducing the risk of cesarian delivery or improving hemoglobin concentration.

Nutrition counseling shows little to no difference in reducing the rate of stillbirths and anemia.

No studies reported the effects of nutrition counseling on maternal mortality, iron deficiency, or assessed iron intake.

What do the findings of this review mean?

Our review highlights improvements in maternal behavioral and health outcomes through interactive nutrition counseling during pregnancy. However, inconsistencies in the definition of nutrition counseling studies conducted in LMICs and low certainty of evidence limit our interpretation of the findings. Thus, high-quality studies with a standardized definition of nutrition counseling that highlights the interactive nature of the practice and a clear theory of change for maternal and infant behavioral and health outcomes are needed.

Findings for impact on health equity were scarce and uncertain.

How up-to-date is this Campbell review?
The review authors searched for studies up to June 2021.

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About this summary

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