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Caring Practices, Energy Regulation and the Use of Ready to Use Foods in the Management of Moderate Malnutrition: Lessons from the Developed World

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Aims

This paper aims to consider how developed world evidence on weight faltering (failure to thrive) and energy regulation could inform treatment programmes for moderate malnutrition.

Lesson from the UK

In the UK, weight faltering (failure to thrive) caused by mild to moderate undernutrition occurs in around 2% of infants. Research with such children has revealed that many have individual characteristics of low appetite and fussy eating that predispose them to undernutrition, but that after a structured assessment and advice from their health visitor, their weight gain can be improved.

Infants and toddlers show substantial energy regulation and tend to eat less following intake of high energy drinks. This may be why the use of high energy milks and food supplements in the UK tends to be associated with delayed intake of solids and worsening eating behavior, but not improved growth.

This partly reflects the difficulty of diagnosing moderate acute malnutrition (MAM), since any single threshold tends to also identify constitutionally short or slim children.

Application to the developing world

The recent introduction of new high-energy ready to use therapeutic foods (RUTF) has greatly improved the care of severely malnourished children, but there may be risks in the use of such foods when used in MAM, with children who may have low appetite drive or simply be constitutionally short. The possibly adverse effects include:

- Reduced intake of the normal diet due to energy regulation, leading to more coercive and aversive feeding behavior by carers.
- Displacement of breast milk
- Delayed acquisition of solid feeding skills
- Loss of opportunity to improve family feeding skills
- Energy gap when supplements withdrawn

Conclusions

Trials of the use of RUTF in the management of moderate malnutrition need to consider short term harms and long term efficacy, not just short-term gains in weight and should be compared to interventions that target enhancement of caring practices and home diet, which potentially have a much more lasting effect.