'Severe malnutrition': thinking deeply, communicating simply

Research snapshot[1]

There is currently a plethora of complex technical terminology used to describe malnutrition which can confuse non-specialist audiences. Current terminology has limitations in that it emphasises being severely small (short or thin) rather than the risk of severe adverse outcomes such as mortality, morbidity or developmental delay. Furthermore, using anthropometry to define malnutrition, while valuable, does not distinguish between the state and process of malnutrition and misses children with 'normal' anthropometry who are deteriorating and at risk of adverse outcomes. Alternatively, it may include children who are constitutionally small with no functional/clinical impairments who may not benefit from nutrition-based treatment. Terminology distinctions have also led to nutrition 'tribalism'

with different anthropometric deficits being managed by different communities and inadequate consideration for the context within which malnutrition is experienced.

Given these limitations, the authors propose the use of the term 'severe malnutrition' to define 'any form of malnutrition associated with a high risk of severe adverse outcomes.' This definition includes stunting, underweight, wasting, low mid-upper arm circumference, concurrence, oedematous malnutrition and micronutrient malnutrition. It provides a simple, advocacy focused term in which 'severe' highlights the risk of mortality/morbidity and encompasses different manifestations of malnutrition, context-appropriate anthropometric cut-offs and underlying causes.

The advantages of this terminology include providing a bridging language for increased linkages between different nutrition-related programmes, offering clarity and familiarity (both 'severe' and 'malnutrition' are widely understood and are easily translatable into most languages) and the chance to keep important technical arguments internal to avoid giving the impression to external audiences that experts do not agree on core issues. Using this term and guided by local mortality/morbidity data, countries could be freer to set context-specific programme admission criteria for 'severe malnutrition'.

The authors conclude that the use of the term 'severe malnutrition' as a complement to current terminology would enable clear, simple communication while encouraging simultaneous deep thinking about malnutrition.

[1] Kerac M, McGrath M, Connell N, et al., (2020) 'Severe malnutrition': thinking deeply, communicating simply. BMJ Global Health 2020;5:e003023. doi:10.1136/bmjgh-2020-003023

Fertility is a key predictor of the double burden of malnutrition among women of child-bearing age in sub-Saharan Africa

Research snapshot[1]

Globally, countries are undergoing a nutrition transition, shifting from high rates of underweight towards growing rates of overweight and obesity. In sub-Saharan Africa (SSA), this transition has occurred relatively rapidly over the last 40 years. No study to date has specifically examined the double burden of malnutrition (DBM) in women of child-bearing age within the region. This study aimed to address this gap by classifying countries according to malnutrition prevalence of women of child-bearing age and determining key country-level and individual-level risk indicators associated with underweight, overweight and obesity within this group. Data from 34 SSA countries were acquired

from Demographic and Health Surveys, the World Bank and the Swiss Federal Institute of Technology. National malnutrition prevalence rates were determined and random forest analysis and multinomial logistic regression models used to examine associated risk indicators.

Of the 34 countries studied, five continue to face significant undernutrition (greater than 10% prevalence of underweight), 11 countries face DBM (with a greater than 10% prevalence of both underweight and overweight/obesity) and 18 countries face significant overnutrition (greater than 10% prevalence of overweight (seven countries) and obesity (11 countries)). Across countries, fertility rate was the strongest predictor of undernutrition,

overweight and obesity prevalence; fertility rates were highest in countries with high underweight prevalence and lowest in countries with high overweight/obesity prevalence. Economic and equality indicators (measured via Gross Domestic Product and Gini coefficient indicators) were also noted to be strong predictors of nutrition outcomes. Within countries, parity was a risk factor for underweight in countries with a high burden of underweight and a risk factor for overweight/obesity in overweight/obesity burdened countries. Age and wealth were noted to be protective factors for underweight but risk factors for overweight/obesity.

This study highlights the important role of fertility and parity in nutrition outcomes for women of child-bearing age and urges health professionals to consider integrating reproductive services and nutrition programmes in SSA.

[1] Were, J. M., Stranges, S., & Creed, I. F. (2020). Fertility is a key predictor of the double burden of malnutrition among women of child-bearing age in sub-Saharan Africa. Journal of global health, 10(2), 020423. https://doi.org/10.7189/jogh.10.020423

The missing focus on women's health in the 'First 1,000 days' approach to nutrition

Research snapshot[1]

The First 1,000 Days approach emphasises the time between conception and a child's second birthday as a critical period where adequate nutrition is essential for subsequent healthy growth and development throughout the child's life. Based on a review of the relevant literature, this commentary explores the First 1,000 Days approach with a maternal lens.

The focus of nutrition-specific and nutrition-sensitive interventions within the first 1,000 days is on child health benefits with very little attention given to maternal nutritional status and health outcomes. Interventions indirectly place emphasis on mothers through interventions to strengthen their nutritional status during pregnancy and lactation, for example, through vitamin and mineral

supplementation and multiple micronutrient (MMN) supplementation to reduce the risk of low birthweight (LBW) infants.

However, women's health indicators are rarely tracked and measured. As an example, the authors highlight a 2017 Cochrane review of MMN supplementation for women during pregnancy which included 16 trials that reported the effects on preterm births and LBW and 15 trials that reported small-for-gestational-age but only five trials that reported maternal anaemia, four trials reporting caesarean section rates, three that reported maternal mortality rates and one trial that reported pre-eclampsia. Other maternal health outcomes (placental abruption, premature rupture of membranes, maternal wellbeing or satisfaction) were not re-

ported by any of the trials. This represents a measurement gap in the evidence base, particularly in health outcomes for women.

The gap in knowledge of the effect of maternal nutrition interventions on women themselves perpetuates the lack of prioritisation and research in this area. Nutritional interventions within the First 1,000 Days approach have not had the expected magnitude of effects on reducing childhood stunting and potentially the lack of attention given to the nutritional status of women has been a contributing factor to this. The authors conclude that there is a need to understand the processes of entrenching poverty and malnutrition between inadequacies in maternal diet, adverse health outcomes for women and contextual factors, with mothers at the centre.

[1] Kinshella, M., Moore, S., & Elango, R. (2020). The missing focus on women's health in the First 1,000 days approach to nutrition. *Public Health Nutrition*, 1-5. doi:10.1017/S1368980020003894