

Foregrounding 'Community' in Community Management of Severe Acute Malnutrition: An Indian Perspective

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Abstract

The issue of widespread food insecurity amongst children in Africa and Asia has often been narrowed to the discourse on 'severe acute malnutrition (SAM)' in the last decade. Further, conflicting notions exist in relation to the root causes and solutions for SAM; ranging from the dominant view that it is a medical emergency needing medical/technical assistance, to its being perceived as a socio-economic-political phenomenon, to be managed largely by enhancing the agency of the affected families and communities. Much recent experience, and some evidence, has emerged that suggests that SAM in India is a unique phenomenon with distinct differences from its counterpart in Africa. Nonetheless, the technical community has been slow to acknowledge these differences, leave alone alter their recommendations accordingly. These differences in understanding are sharply evident in the interpretation of community management of acute malnutrition (CMAM) in particular.

This paper examines these differences; factual and perceptual, and critically interrogates the definition and programmatic interpretation of CMAM that is in current usage, which results in the further marginalization and dependence of the affected community upon external resources. It also highlights the characteristics of alternate programmes for CMAM using a few models for illustration.

Introduction

Though food security remains a major concern for the majority of people in Africa and South Asia, it is as 'malnutrition' that the issue has gained much priority in the last decade. This, further, has become a battleground for conflicting notions related to its root causes and solutions. In the case of severe acute malnutrition (SAM), perceptions range from it being a medical emergency (1) which needs to be treated predominantly medically/technically through 'quick-fix' solutions to (2) it being understood as a net result of socio-economic-political inequities, to be managed by enhancing the agency of the affected families and communities.

This paper recommends a more nuanced approach whereby the latter notion is given predominance, with due inclusion of adapted 'technical' know-how (3,4). The paper also reflects upon the influence that the African experience has had upon India through invested international agencies, and key differences between the malnutrition that is being encountered between the two continents. It draws upon a few models of community-based work on malnutrition in which the author has been directly

involved [Action Against Malnutrition (AAM): AAM Consortium: PHRN, Ekjut, CINI, JSS, Chaupal, IDEA. Supported by TATA trusts; and Facilitated Action Against Malnutrition (FAAM): PHRN-PRADAN. Supported by BMGF, IKEA Foundation].

The Dominant Paradigm; A Flawed Concept

The definition of 'community-based'

CMAM or community-based management of acute malnutrition has been described by WHO as a “community approach” that involves “timely detection of severe acute malnutrition in the community and provision of *treatment* for those without medical complications with ready-to-use therapeutic foods or other nutrient dense foods at home” (5). UNICEF, further, defines CMAM as an *outreach of a medical facility* by defining it as having the following components: a) community outreach as the basis; b) management of moderate acute malnutrition (MAM); c) outpatient treatment for children with SAM with a good appetite and without medical complications; and, d) inpatient treatment for children with SAM and medical complications and/or no appetite. It refers to the major component of outpatient treatment, ready to use therapeutic food (RUTF), as one part of a *medical* protocol that should only be used as part of the community-based management of acute malnutrition in children, in accordance with international standards for such care (emphasis mine) (6).

As is evident, the community programme is seen as the outreach of a medical facility rather than the primary arena of action to be supported by medical facilities.

It also does not consider the family and local resources as the primary point of departure albeit one that might need inputs and support. The “community outreach” in UNICEF’s expanded ambit of CMAM has in many cases, reduced the role of the community to merely bringing children for diagnosis and possible home treatment with RUTF. CMAM, thus defined, differs so radically from other community-based approaches that it could be considered a misnomer. These definitions are thus themselves problematic and inimical to a truly *community* based programme with the true potential to manage acute malnutrition. In other words, there is little of the ‘community’ in CMAM.

The definition of 'management'

Further, this definition does not consider prevention an integral part of the process as it defines the entire process of ‘management’ as *cure or treatment* of such children as have already reached the state of moderate or severe acute malnutrition. It does not, for instance, insist upon pre-emptive action in the preceding phase of growth faltering that would prevent many children from falling further, which would involve lower costs per child, both organisational and societal. Thus, while disease management is traditionally understood to be a process that reduces the burden of disease through secondary prevention as well as achieving a cure with the full participation of the patient and family (7), this definition renders management for SAM equivalent to treatment or cure.

The justification

Ostensibly, these arguments are born out of a concern and urgency with regards to the risk of mortality associated with SAM. These, in turn, have arisen mostly from the

experience in Africa where high rates of mortality and morbidity have been observed to be associated with SAM. This has preceded similar work in India by more than a decade. However, as community-based programmes in India arise and are studied, it is becoming clear that the patterns in India are quite different. As early as 1996, Ramilangaswamy et al (8) pointed to the 'Asian Enigma' noting that the prevalence of malnutrition in Asia is far higher than in Africa. However, significantly, they also observed that mortality rates are much lower. This has also been postulated more recently by academics theoretically, arguing that India suffers a kind of malnutrition that is somewhat peculiar, being 'acute-on-chronic' rather than purely 'acute' (9). Not only does this have implications for the understanding of its determinants, it also seems to have an effect on relative mortalities and morbidities, as seen in two rigorous studies of large-scale CMAM interventions in India of the primarily medical typology (1, 10). While resulting in lower mortalities, it also makes recovery more difficult and far lower recovery rates are seen as compared to Africa with similar interventions (11).

An acute-on-chronic type of severe malnutrition suggests a chronic food insufficiency, probably intergenerational, upon which an acute episode of food insufficiency, or, more commonly, ill health may also impinge. Resulting mortalities are lower in comparison to Africa, perhaps because of the kind of homeostasis and accommodation that is seen to happen with other chronic severe deficiencies also found in India, such as chronic severe anaemia. Recalculation of existing global macrodata data also suggests lower case fatality rates than previously feared (12).

There is also undisputable evidence that the bulk of the infant mortality in India arises from deaths in the neonatal period which have no relationship to SAM per se, but are also linked to larger social determinants of food security, care during pregnancy and delivery and gender equity. These facts should have created greater confidence for a shift from a medicalised short-term strategy to the promotion of longer-term strategies that empower communities, but they are not generally acknowledged in discussions. Thus 'saving children's lives' remains juxtaposed in opposition to engaging with communities, much as it would not be expected for communities to participate in the treatment of a life-threatening illness like meningitis. It is widely accepted that 80% of children with SAM do not require medical facilities for management. Yet their management in the community continues to be considered 'medical' in nature, which is itself a paradox.

Essentially the arguments above should lead us to understand that not only is it feasible to take a medium-term approach to managing the socio-economic-cultural dimensions of SAM rather than merely the medical ones; it is imperative. In our understanding, for CMAM to be truly successful in reducing severe acute undernutrition; it has to be comprehensive rather than segmented. It must, at a minimum, focus on the underlying immediate causes of care, health and nutrition simultaneously and also attempt to tackle distal determinants such as poverty, gender discrimination and access to services. It must enable and capacitate parents and the community to use local resources to ensure that children are not undernourished and promote self-reliance for better nutrition. It must treat and save lives, and simultaneously prevent acute malnutrition at individual and community level.

Table 1: Some Differences in the Nature of Malnutrition, Africa and India

	AFRICA	INDIA
TYPE	PREDOMINANTLY ACUTE (WASTING)	PREDOMINANTLY ACUTE ON CHRONIC (WASTING ON STUNTING) (9)
INCIDENCE AND PREVALENCE	LOWER	MUCH HIGHER: NEARLY DOUBLE BUT SAM LESS THAN PROJECTED AND IMPROVING
MORTALITY	HIGHER	MUCH LOWER THAN EXPECTED (1,3, 10, 12)
MORBIDITY	HIGHER	MUCH LOWER THAN EXPECTED (1)
HYPOTHESISED REASONS (SOUTH-ASIAN ENIGMA)	FOOD INSECURITY INADEQUATE HEALTH CARE	FOOD INSECURITY INADEQUATE HEALTH CARE PLUS FAR GREATER GENDER INEQUITY (8)
IMPLICATIONS	FOCUS ON SHORT TERM OUTCOMES MORE URGENT THAN IN INDIA BUT LONG-TERM STRATEGIES FOR PREVENTION MUST STILL BE INSTITUTED	COMPREHENSIVE SHORT, MEDIUM AND LONG-TERM STRATEGIES MUST BE INSTITUTED AND GIVEN PRIORITY LITTLE JUSTIFICATION FOR MEDICALISED APPROACH AND MUCH FOR A COMMUNITY APPROACH (3)

While further rigorous study is undoubtedly required to provide evidence for some of these propositions, much of it is quite clear through current evidence on mortality and emerging evidence from CMAM studies. Yet, the over-riding refrain from the technical community to justify short-term aggressive medicalised strategies that

invoke CMAM without involving the community and focus only on those already in the dire status of SAM, remains the risk of mortality.

The issue of prevention is taken up instead, through another similarly flawed concept that favours the treatment of mild and moderate acute malnutrition (MAM) through the use of Ready to Use Supplemental Foods (RUSF). (Formally speaking, this too represents only secondary prevention.) In this framework, thus, the entire spectrum of MAM and SAM is to be dealt with through nutraceutical products delivered to the community. This concept, while it offers coverage of the majority of the child populations in some geographical areas, suffers from the same host of disadvantages of RUTF (13) while not even justifiable by the threat of mortality in MAM. Obviously, it also allows for larger markets and numbers and larger reliance on products the production and supply of which the community has no control over. The history of the use of these products also suggests strong influences upon nutrition policies by RUTF and RUSF producing companies and organisations.

These conflicts of interest that have beset the processes underlying technical guidance have largely been through the involvement of many technical experts in technical advice as well as simultaneously in the manufacture of nutraceutical products. Though conflict of interest is notoriously difficult to document and evidence, it has been well documented in a recent paper by Bazzano et al (14).

Recently, a few practitioners have been involved with alternate programmes of CMAM in an attempt to demonstrate models based on the principles of comprehensiveness, continuity of care and prevention. In tandem, there has been a concerted advocacy in favour of the use of locally-sourced, community-based nutritional products, specially from the Right to Food Campaign and Peoples' Health Movement-India (Jan Swasthya Abhiyan) at the national level and by IBFAN internationally (15). It is as a concession to this advocacy that the section on RUTF in the CODEX now has the following statement in the revised document:

“In specific settings where there is provision of adequate resources, the treatment of SAM is based on a therapeutic diet using locally available nutrient-dense foods prepared by the carer at home, without the use of commercially produced products such as RUTF. UNICEF acknowledges that some regions adopt this approach to managing SAM as they believe it be more sustainable and better suited to the country” Revised UNICEF document for Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU)

Some Alternatives

The Action Against Malnutrition (AAM) Project, which has been initiated in 7 blocks in the states of Jharkhand, Odisha, Chattigarh and Bihar, shows how community management of malnutrition can be truly empowering for the community and family, and treat and prevent malnutrition at the same time in a more sustainable way (4).

The programme depends upon participatory learning and action (PLA) on nutrition at the village level and day care services providing care, nutrition and health surveillance. It is run with the participation of the village community. As part of the

programme, protocols have been carefully designed to allow trained village women to understand and manage malnutrition. Regular (assisted) growth monitoring is a key to the programme. Growth faltering is a trigger for corrective action in addition to the static indicators used in the WHO-UNICEF guidelines. Local foods are used with nutritional inputs to enhance calorie density and protein richness.

Results have been encouraging. For instance, in a cohort of 587 children under three years of age attending these creches, 86% remained normal or improved grades over a 4-6 month period. The project has also clearly shown that the energy-rich home-based foods are efficacious in treating SAM, if accompanied by adequate care through crèches run by trained local women (3). In a small sample of 45 children with SAM, 85% showed improvement from severe wasting, with 49% shifting to moderate and mild wasting and 36% to normal (36%). In a subsequent study [Under review for publication, Indian Pediatrics] of a larger cohort of 179 children with SAM across seasons, 76% moved out of SAM; 37% becoming 'normal'. These gains seemed to enhance with time rather than diminish, after the children exited the programme. The results of a formal evaluation using a quasi-experimental design [Awaiting publication] are also favourable for both the strategies of PLA and crèches, and suggest that the programme is capable of reducing the risks of underweight and wasting significantly. Meanwhile, the results of a rigorous trial involving supervised feeding with three different types of supplements [including commercial RUTF] have recently been published. This trial suggests that the gains across the arms were transient once the intervention was withdrawn (10, 16) The same trial also showed that the difference in efficacy between augmented home foods and commercial RUTF was not significant, while a locally produced RUTF, identical in composition to the commercial RUTF, was inexplicably superior. Regardless of the product, significantly, supervised feeding was required to achieve good outcomes.

Some PLA-Nutrition programmes [such as FAAM] with women's self-help groups are also underway on a large scale with facilitation by NGOs attempting to reach about 100,000 women across the country. A similar scaled-up programme is being run by the Government of Odisha in all its districts [*Shaktivarta*].

FAAM is undergoing a formal evaluation. So far, qualitative documents confirm its potential for ensuring that the community is well informed on the basic precepts of good nutrition, and can analyse their own contexts to take action towards better nutrition at household level and to demand better access to services related to food security [Details available at website www.phrnindia.org and unpublished paper *Cyclical Negotiations Between Theory And Practice For Building Knowledge In Nutrition, With Intent To Action: A Case Study of Collaboration* available https://www.researchgate.net/profile/Vandana_Prasad4/contributions].

Where the discourse for setting policies and programmes has shifted over recent years away from using rights as a framework toward 'evidence-based decision making', and evidence is defined narrowly to include only randomized control trials, community-based organisations find themselves at a distinct disadvantage due to lack of human and financial resources as well as technical know-how. Governments may engage in pro-people (derided as 'populist' by some!) programmes born out of political or electoral imperatives, but also do not tend to invest in experimental research unless specifically pushed and funded by the relatively rich and powerful international agencies involved in technical assistance. This hardly enables any level playing field

for creating or comparing evidence in favour of decentralised community-based empowering approaches.

Conclusion

The technical community, led by WHO and UNICEF, has been taking a minimalistic and circumscribed approach to community management of SAM, and has been resistant to approaches rooted in precepts of community participation and rights. While it has taken the cover of 'lack of evidence' as its justification, it has been equally slow to take cognizance of the evidence as it emerges. Rather than creating whatever evidence-base is currently lacking to address the issue of how to empower communities to take charge of the nutrition of their own children better, it is engaged in promoting a reliance on technical, top-down measures of only marginally greater efficacy in the short term (10, 13, 16). It has also steadfastly refused to recognize the opportunity costs of pushing for an elusive 'cure' at the constant expense of prevention (17, 18) and ignored concerns related to impacts upon health in the long term with products like RUTF (14) that are high in sugar. While we are still trying to build conclusive evidence for such programmes, we expect and wish the stronger players would do more in this regard, or at least show a modicum of interest in programmes which are truly community-based. This resistance to empowering communities to take charge of CMAM suggests a hegemonic interest in maintaining control through technical expertise and also suggests the influence of conflicts of interest.

Indian children are becoming malnourished as a result of dire inequities in basic needs such as good quality food, safe water, sanitation and health care. Of particular concern is the lack of food diversity leading to serious deficiencies in both macro and micronutrients (19). It would behove all those who are concerned for children to abandon the current minimalistic approach to CMAM that marginalizes the community in favour of genuinely community-based approaches that allow for technical inputs without allowing them to dominate the agenda. At this moment, CMAM pilots are rolling out in 13 states of India under the aegis of international donor agencies with varying combinations of product-based strategies. Thus, if the majority of India's poor children are fated to receive packets of nutraceuticals for SAM and MAM, and nothing much else, so it will come to pass, under the sorry watch of many concerned powerful agencies and some relatively powerless ones.

References

1. Burza S, Mahajan R, Marino E, et al. Community-based management of severe acute malnutrition in India: new evidence from Bihar. *Am J Clin Nutr.* 2015; **101**: 847-859. <http://dx.doi.org/10.3945/ajcn.114.093294>
2. Sachdeva HPS, Kapil U, Gupta A et al. "Sustainable developmental solutions or product-based illusions for addressing severe acute malnutrition?" Paper submitted to the World Nutrition Conference 2016, held in Cape Town, South Africa from 30th August to 2nd September 2016.
3. Prasad V and Sinha D. Potentials, experiences and outcomes of a comprehensive community based programme to address malnutrition in tribal India. *International Journal of Child Health and Nutrition.* 2015; **4**: 151-162
4. Prasad V, Ganapathy M, Sinha D et al. *Combatting Malnutrition: A process document. Action Against Malnutrition.* New Delhi: PHRN, 2014.
5. *Community-based management of severe acute malnutrition. A Joint Statement.* World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund, 2007.

6. Ready-to-use therapeutic food for children with severe acute malnutrition. Current issues 1. New York: UNICEF, 2013.
available http://www.unicef.org/media/files/Current_Issues_Paper_-_Ready_To_Use_Therapeutic_Food.pdf
7. Schrijvers G. Disease management: a proposal for a new definition. *International Journal of Integrated Care*. 2009; **9**: e06
8. Ramalingaswami V, Jonsson U, Rohde J. The Asian enigma. The progress of nations. New York; United Nations Childrens Fund, 1996.
9. Dasgupta R, Ahuja S, Yunnam V. Can nutrition rehabilitation centers address severe malnutrition in India? *Indian Pediatr*. 2014; **51**(2):95-99.
10. Bhandari N, Mohan SB, Bose A, et al. Efficacy of three feeding regimens for home-based management of children with uncomplicated severe acute malnutrition: a randomised trial in India. *BMJ Global Health*. 2016; **1**(4):e000144.
11. de Monval ADI and Sfeir Y. Severe acute malnutrition management in India's children: the riddle. *Field Exchange*. 2016; **52**:104.
www.ennonline.net/fex/52/acutemalnutritiionindiaschildren
12. Black RE, Allen LH, Bhutta ZA, et al. Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: global and regional exposures and health consequences. 2008; **371**: 243-60. [http://dx.doi.org/10.1016/S0140-6736\(07\)61690-0](http://dx.doi.org/10.1016/S0140-6736(07)61690-0)
13. Greiner T. The advantages, disadvantages and risks of ready-to-use foods. Breastfeeding Briefs No. 56/7: 1-17. September 2014.
(<http://ibfan.org/breastfeedingbriefs/BB%2056-57-The%20advantages-disadvantages-and-risks-of-ready-to-use%20foods.pdf>)
14. Bazzano AN, Potts KS, Bazzano LA et al. The Life Course Implications of Ready to Use Therapeutic Food for Children in Low-Income Countries. *Int J Environ Res Public Health*. 2017; **14**(4): pii: E403. doi: 10.3390/ijerph14040403.
15. Discussion paper on a standard for ready-to-use foods, Comments of Colombia, India, Kenya, Philippines, Thailand, African Union and IBFAN. Germany: Joint Fao/Who Food Standards Programme, Codex Committee On Nutrition And Foods For Special Dietary Uses, Thirty-seventh Session, 2015.
16. Prasad V. Reading between the lines of the RUTF trial (Comment). *BMJ Global Health*. 31 January 2017.
17. Schaetzel T and Nyaku A, Infant & young child nutrition project. the case for preventing malnutrition through improved infant feeding and management of childhood illness. Conference poster. 10th Commonwealth Association of Paediatric gastroenterology and Nutrition (CAPgAN) Congress. Malawi; USAID, 2009.
available http://pdf.usaid.gov/pdf_docs/Pnadr488.pdf
18. Latham M, Jonsson U, Sterken E, Kent G. RUTF stuff. Can the children be saved with fortified peanut paste? *World Nutrition*. 2011; **2**(2): 62-85.
http://www.wphna.org/htdocs/2011_feb_wn3_comm_RUTF.htm
19. National family health survey 2015-2016. Mumbai: International Institute Of Population Sciences, 2016.