

Barriers to infant feeding in emergencies programming in middle and high-income countries

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Location: *Middle- and high-income countries (MICs/HICs)*

What we know: In every emergency it is necessary to assess and act to protect and support the nutrition needs and care of all infants and young children.

What this article adds: Interviews were conducted with 14 global experts with experience of working on infant feeding in emergencies (IFE) in recent disasters in MICs and HICs to identify barriers to effective IFE programming. Findings demonstrate a lack of understanding among disaster responders and healthcare professionals of the impact of disasters on infant feeding patterns and risk profiles of infants dependent on breast milk substitutes (BMS), the vulnerability of infants, and the nature of and need for supportive infant feeding interventions to manage new risks. Lack of experience and training among disaster responders and perceptions that IFE is a food rather than a health issue were common findings. Global guidelines on IFE are considered ‘inapplicable’ in MICs/HICs; maternal choice in infant feeding decisions carries great weight, with little consideration of public health and resource implications. Advocacy and preparedness action is urgently needed among disaster responders, healthcare professionals and decision-makers in MICs/HICs on context-specific IFE programming.

Introduction

The IFE Core Group document *Operational Guidance on Infant and Young Child Feeding in Emergencies* provides concise guidance on how to ensure appropriate infant and young child feeding in emergencies for all children under two years of age (IFE Core Group, 2017). While attention often centres on low-income contexts, experiences from recent disasters in middle- and high-income countries (MICs/HICs) have demon-

strated considerable challenges related to infant feeding practices and response. Publications in 2017 and 2018 alone show that problems in infant feeding in emergencies (IFE) have been encountered in Canada (DeYoung et al, 2018), Iraq (Haidar et al, 2017; Ververs et al, 2018), Lebanon (Akik et al, 2017; Shaker-Berbari et al, 2018), Pakistan (Maheen and Hoban, 2017), Puerto Rico (Santaballa, 2018), Ukraine (Summers and Bilukha, 2018) and the migrant crises in Europe (Svoboda, 2017). This study aimed to describe

the internal and external barriers that humanitarian organisations and government agencies faced in addressing infant feeding problems during emergencies in MICs/HICs as perceived by various members of the IFE Core Group.¹

Methodology

Between November 2017 and March 2019, key informants (KIs) were selected based on their active membership in the IFE Core Group, experience working in IFE programming and active engagement on IFE in MICs/HICs in the past five years. Semi-structured interviews were held, during which the KIs were asked to describe barriers within their own organisations and other organisations and government agencies when addressing IFE in MICs/HICs. Notes were taken during the interview; colour-coded, analysed and categorised by theme. Informed consent was sought through a verbal consent process prior to the KI interview. The data was de-identified to assure privacy of the participants.

Results

Fourteen key informant interviews were conducted. At the time of the interviews, the KIs worked for non-governmental organisations (NGOs) (8), United Nations (UN) agencies (3), in academia (2), or as an independent consultant (1). Interviews lasted on average between 30 to 60 minutes. Table 1 illustrates the main barriers related to infant feeding in disasters in MICs/HICs that emerged, described in more detail below.

A. Lack of understanding of a changing risk profile in disaster contexts

All KIs agreed that, in a disaster context, infant feeding patterns change. Some infants who were breastfed before the disaster no longer received breast milk, either because they were separated (temporarily or permanently) from their mothers (due to death, illness, injury or absence), or because mothers believed they were no longer able to breastfeed. Infants dependent on breast

Table 1 Barriers to optimal IFE in disasters in middle- and high-income countries (MICs/HICs) as expressed by key informants

Lack of understanding of a changing risk profile in disaster contexts
Lack of awareness that infants are a vulnerable group
Infant feeding not seen as lifesaving in disaster settings
Lack of experience of IFE
Lack of understanding of the response needed for IFE
Lack of knowledge on risks of breast milk substitutes used in disasters
Perception that global guidelines on infant feeding are not necessarily applicable to MICs/HICs
Perception that maternal choice and autonomy supersede increased public health risks
Lack of clear indicators to show impact of IFE programming
Lack of understanding that infant feeding is not (just) a food issue

¹ The IFE Core Group is a global collaboration of agencies and individuals that address policy guidance and training resource gaps hampering programming on infant and young child feeding support in emergencies. www.ennonline.net/ifecoregroup

milk substitutes (BMS) before the disaster likely remain so during it, but their risk profile changes dramatically. Caregivers providing for BMS-dependent infants may find themselves without electricity, gas, access to safe water and boiling facilities, with few means to hygienically prepare BMS or access necessary infant-feeding supplies. KIs reported that many caregivers in recent crises were preparing BMS in bathrooms of schools, sports facilities and train stations as these were often the only places where water was available. KIs reported a lack of understanding among disaster responders of the changing risk profile of infants during disasters in MICs/HICs and a belief among healthcare professionals that there was no need for specific programmes for their support² as caregivers already knew how to prepare and use BMS.

B. Lack of awareness that infants are a vulnerable group

KIs stated that disaster responders in MICs/HICs often only recognise “classic” vulnerability groups, such as the elderly, people who are ill or immunocompromised, and people who are institutionalised. They are unaware that infants are also a vulnerable group in disasters, especially with regard to their feeding. Additionally, some KIs stated that decision-makers in disaster response programming were often “middle-aged men” who did not identify infants as specifically vulnerable, which explained the absence of infant-feeding preparedness plans.

C. Infant feeding not seen as lifesaving in disaster settings

KIs stated that infant feeding was not seen as lifesaving by healthcare professionals and others, but as an issue relevant for later stages of emergency response after access to shelter, curative care, water and food had been provided. Many disaster responders did not understand that infants need immediate access to either breast milk or safely prepared BMS and that no other food options are suitable. KIs mentioned that responders often believed survival needs to be more or less the same for every group of people and that, if the prevalence of acute malnutrition was relatively low in the disaster area, a nutrition response was low priority. This sometimes led to tension within organisations that worked on health and nutrition in disasters among individuals who saw no need for an IFE response and others who understood the need.

D. Lack of experience of IFE

KIs indicated that many organisations lacked IFE experience at programme-manager level or above. Many disaster responders and healthcare professionals have limited experience in nutrition or in emergency settings specifically in MICs/HICs. Even if some NGO staff had experience in low-income settings where breastfeeding is the norm, this did not adequately prepare them to deal with more complex IFE issues in contexts where breastfeeding is not the norm. KIs also specified that the emergency response training curricula in MICs/HICs often inadequately address nutrition.

E. Lack of understanding of the response needed for IFE

KIs agreed that there was a lack of understanding on what IFE programming entails and how labour intensive it is, with little understanding of the need for individual infant-feeding assessments and counselling. Disaster responders in MICs/HICs were likely to view the response as a commodity-driven exercise and distribute BMS as they would food; it was reported that sometimes medical staff are paid incentives to prescribe BMS for new mothers. BMS was occasionally included in blanket distributions to all caregivers, which disincentivised breastfeeding mothers. Distributions sometimes only included a one-week supply of BMS, and rarely included water, detergent, brushes and fuel to clean or sterilise feeding bottles and boil water to prepare the BMS safely.

F. Lack of knowledge on risks of BMS use in disasters

KIs reported that, when the need for IFE programming was raised (including individual assessments and counselling prior to blanket distribution of BMS), disaster responders asked for scientific evidence showing the risks of BMS distribution. One KI reported that healthcare professionals wanted to use free distribution of BMS in a conflict-affected MIC as an incentive for other interventions and asked the KI to provide evidence of how distribution of BMS would harm infants, if at all.

G. Perception that global guidelines on infant feeding are not necessarily applicable to MICs/HICs

Many KIs noted that, in MICs/HICs, local disaster responders, including Ministry of Health staff, believed that globally established guidelines and evidence did not necessarily apply to their countries or contexts when affected by disasters. This included guidance established by the World Health Organization; notably the International Code of Marketing of Breast-milk Substitutes (WHO, 1981). This was also seen in countries where paediatricians and other healthcare professionals were part of the incentive-driven distribution system of BMS. Many humanitarian organisations were aware of the guidance and best practices, but were conflicted on how to implement the guidance and consequently did not address IFE out of fear of making mistakes or breaking the rules, leading to inaction.

H. Perception that maternal choice and autonomy supersede increased public health risks

There was a consensus among KIs that when a mother of an infant less than six months of age is absent, ill or deceased in a disaster, BMS and additional resources need to be mobilised and provided. However, organisations were little prepared on how to address situations where mothers expressed that they no longer desired to breastfeed. Many KIs noted that healthcare professionals put great emphasis on maternal choice. Often there was no discussion when a mother decided to stop breastfeeding during a disaster and no information was shared about

the risks of BMS. Healthcare professionals felt that the disaster context was not the right context to question the mothers’ decisions, not realising the significant public health consequences – particularly for infants – of this autonomy. Once the choice was made to use BMS, it was rarely discussed or agreed upon which organisation(s) would provide the additional resources needed for the length it was required.

I. Lack of clear indicators to show impact of IFE programming

Several KIs acknowledged that IFE programming lacked clear impact indicators. Some remarked that, unlike community-based management of acute malnutrition (CMAM) programming, IFE programmes were unable to show the number of deaths or diarrhoea episodes averted, or impact on nutrition outcomes.

J. Lack of understanding that infant feeding is not (just) a food issue

KIs expressed concern about how IFE was perceived. They stated that as long as professionals working in sexual and reproductive health, paediatricians and disaster responders perceived IFE as merely a food issue (rather than a public health and child development issue), response in disasters would be inadequate.

Discussion

The analysis of the interviews confirms findings from other recently published articles from MICs/HICs of a lack of understanding among healthcare workers on the risks, challenges and necessary support needed for safe BMS use in emergencies, lack of experience among disaster responders on IFE, and an overall lack of understanding of what constitutes an adequate IFE disaster response (Modigell et al, 2016; Prudhon, 2016). Findings reveal that, at times, a tension exists between IFE experts and co-workers within the same organisation due to differing opinions on IFE programming. There also appears to be a drive within organisations to support maternal choice to use BMS, without factoring in the substantial resource and public health implications for mothers and infants. Findings suggest that, as long as disaster responders continue to regard infant feeding during a disaster as a food issue and not as a significant health concern, IFE programming will remain under-delivered as a necessary intervention to protect infant and child health and nutrition.

Findings of this study demonstrate a significant need for advocacy and awareness-raising on what good (and bad) IFE programming entails within humanitarian organisations and governments, as well as among healthcare professionals and disaster managers in MICs/HICs. Addressing these barriers will ultimately contribute to a reduction in morbidity and mortality among infants in disaster settings.

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² Recommendations on the necessary supplies and support to manage artificial feeding in emergencies are outlined in the Operational Guidance on IFE.

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The relationship between wasting and stunting: a retrospective cohort analysis of longitudinal data in Gambian children from 1976 to 2016

Summary of research¹

Location: *Gambia*

What we know: There are gaps in understanding the relationship between wasting and stunting that often concur in populations and may concur in the same child.

What this article adds: A retrospective cohort analysis on growth-monitoring records from clinics in rural Gambia (1976 to 2016; 5,160 children under two years old) examined whether wasting is a risk factor for stunting, and vice versa; whether the season of birth influences future wasting and stunting; and whether there are gender differences in growth deficits in Gambia. Wasting was defined as weight-for-length z-score (WLZ) <-2. Stunting was defined as length-for-age z-score <-2. Wasting prevalence peaked at 12% (girls) and 18% (boys) at 10-12 months of age, and at 37% (girls) and 39% (boys) at 24 months of age. Wasted children were 3.2 times more likely to be stunted three months later, and children currently stunted were 1.5 times more likely to be wasted three months later. Infants born at the start of the annual wet season (July-October) showed early growth faltering (WLZ) and increased risk of subsequent stunting. Boys were more likely to be wasted, stunted and concurrently wasted and stunted than girls, and were more susceptible to seasonally-driven growth deficits. Results suggest that stunting is in part a biological response to previous episodes of being wasted. Where significant levels of wasting and stunting exist, treatment and prevention interventions should consider joint approaches. More understanding is needed of the physiologic mechanisms and environmental factors of seasonal vulnerabilities and gender differences in wasting and stunting.

Each year, around 800,000 deaths in children under five years of age are in part attributable to wasting; 60% of which are attributable to severe wasting. In addition, over one million child deaths are attributable to stunting, although this association remains poorly understood. Even though progress is being made in decreasing undernutrition in low- and middle-income countries, stunting and wasting during childhood continue to burden people in the poorest regions in the developing world. Although both forms of undernutrition occur together in children in many contexts and may co-occur in the same child

(referred to as “concurrency”), wasting and stunting are often considered separately with respect to how they are managed clinically and programmatically and how they are researched. The rationale behind this conceptual separation of stunting and wasting in terms of etiology and programming has been questioned in several recent reviews and publications (Briend, Khara and Dolan, 2015; Khara and Dolan, 2014). These publications highlight outstanding gaps in understanding the interrelationship between these two forms of undernutrition as a result of insufficient examination of data; in particular from longitudinal cohorts.

The authors of this paper contribute to filling this gap by describing the interrelationships between wasting and stunting in children under two years old through a retrospective cohort analysis, based on growth-monitoring records spanning four decades from clinics in rural Gambia. Three broad research questions were tested: 1) is wasting a risk factor for stunting, and vice versa? 2) does the season of birth influence future wasting and stunting;? and 3) are there gender differences in growth deficits in the Gambia? Anthropometric data collected at scheduled infant-welfare clinics between May 1976 and September 2016 were converted to z-scores, comprising 64,342 observations on 5,160 subjects (median: 12 observations per individual). Children were defined as “wasted” if they had a weight-for-length z-score (WLZ) <-2 against the WHO reference and “stunted” if they had a length-for-age z-score (LAZ) <-2.

Results reveal that prevalence of wasting and stunting were high in this population. The prevalence of stunting increased with age, peaking at 37% (girls) and 39% (boys) at 24 months of age. Wasting showed an early decline in the first three months (reflecting a period of positive weight gain in the months immediately postpartum), followed by a peak at around one year of age (18% in boys, 12% girls). The prevalence of children with concurrency peaked at 9% in boys and 5% in girls, also at around one

¹ Simon M Schoenbuchner, Carmel Dolan, Martha Mwangome, Andrew Hall, Stephanie A Richard, Jonathan C Wells, Tanya Khara, Bakary Sonko, Andrew M Prentice, Sophie E Moore. The relationship between wasting and stunting: a retrospective cohort analysis of longitudinal data in Gambian children from 1976 to 2016. *The American Journal of Clinical Nutrition*, Volume 110, Issue 2, August 2019, Pages 498–507, <https://doi.org/10.1093/ajcn/nqy326>