Original Article

Perspectives and reflections on the practice of behaviour change communication for infant and young child feeding

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Abstract

Behaviour change communication (BCC) is a critical component of infant and young child feeding (IYCF) interventions. In this study we asked BCC practitioners working in low- and middle-income countries to participate in an examination of BCC practice. We focus here on results of their personal reflections related to larger issues of practice. We used a combination of iterative triangulation and snowball sampling procedures to obtain a sample of 29 BCC professionals. Major themes include (1) participants using tools and guidelines to structure their work, and many consider their organisation's tools to be their most important contribution to the field; (2) they value research to facilitate programme design and implementation; (3) half felt research needed to increase; (4) they have a strong commitment to respecting cultural beliefs and culturally appropriate programming; (5) they are concerned about lack of a strong theoretical foundation for their work. Based on participants' perspectives and the authors' reflections, we identified the following needs: (1) conducting a systematic examination of the alternative theoretical structures that are available for nutrition BCC, followed by a review of the evidence base and suggestions for future programmatic research to fill the gaps in knowledge; (2) developing a checklist of common patterns to facilitate efficiency in formative research; (3) developing an analytic compendium of current IYCF BCC guidelines and tools; (4) developing tools and guidelines that cover the full programme process, including use of innovative channels to support 'scaling up nutrition'; and (5) continued support for programmes of proven effectiveness.

Keywords: sociocultural analyses, complementary feeding, ethnography, caregiving, behaviour.

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Introduction

Virtually, all interventions aimed at improving nutrition of infants and young children depend on behaviour change. Every component of an intervention, with the exception of the biological content of food or supplement, requires complex sets of behaviours on the part of many actors, from policy makers to parents and other caregivers. Behaviour change is an intrinsic aspect of all the steps from creating modifications in food availability through the processes of acquisition, preparation to feeding and child consumption. Even in situations where families have food security and consistent access to healthy foods, there are gaps between scientifically based recommended behaviours and the realities of infant and young child feeding (IYCF) practices. At every level in the system that is involved in implementing interventions to improve IYCF, behaviour change communication (BCC) alone is often insufficient to bring about

improved nutrition, but it is an essential prerequisite of intervention effectiveness.

In view of the fundamental importance of communication for achieving international goals to reduce undernutrition in infants and young children, the International Advisory Group on Infant and Young Child Feeding of the Global Alliance for Improved Nutrition (GAIN) recommended that GAIN undertake a study to describe the landscape of BCC practice in nutrition with an emphasis on IYCF. As part of this effort, we wanted to understand BCC issues and challenges from the perspective of the BCC professionals who work in leadership positions in humanitarian international development agencies on IYCF interventions in low- and middle-income countries. Thus, as part of our landscape study we asked these professionals to step back from the daily pressures of planning, conducting and managing BCC interventions to reflect on the challenges of their professional activities. In this paper we examined practitioners' perspectives and reflections on BCC practice, as well as our reflections on what we learned. An overview of the scope and main features of current BCC for IYCF by the agencies in our study has been published as a separate paper.[1]

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[1]The more technical aspects of the larger study, as well as detailed description of the methodology, including sampling procedures, have been published in a previous paper (Pelto *et al.* 2015). The full results of the text analysis for this paper, as well as descriptive, quantitative tables, are available on the web as Appendix S1.

Methods

The sample

We developed a potential sample of BCC professionals working in humanitarian organisations in low- and middle-income countries through an iterative, triangulation and snowball process, and invited their participation via an email containing a cover letter in which the purpose of the study was explained, our procedures for ensuring confidentiality were described and a self-administered set of open-ended questions was attached. We also offered participants the option of participating through a telephone interview.

We identified 24 organisations that are involved in BCC for IYCF in low- and middle-income countries and contacted 64 individuals, who were associated with them as employees or consultants. We received 24 completed questionnaires, representing responses from 16 organisations. In a number of cases, two or more individuals in the same organisation collaborated in answering the questionnaire; consequently, the views and opinions of 29 individuals (45% of those we initially contacted) provided the database for our study. We consider this a good return rate for a 'mailed survey'.

The participants were high-level professional staff in large international, bilateral and PVO organisations and projects (such as CARE, HKI, FHI 360, Spring, CRS, World Bank, UNICEF) and smaller PVOs, as well as private, specialised companies that engage in BCC. In addition to 'organisational partici-

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Key messages

- With increasing global recognition of the role of BCC to drive IYCN impact at scale, it is vital to understand BCC specialists' contextual perspective.
- Many specialists consider their organizations' program approach and implementation tools, their research orientation, or their culturally sensitive approach to be their most important contributions.
- A lack of a shared theoretical basis for BCC and lack of empirical evaluation of content and approaches are perceived as barriers to implementing sound BCC practices.
- Addressing gaps in evidence about effectiveness and cost effectiveness and support for the development tools and guidelines that cover the entire program process – from initial landscape analysis and formative research to process evaluation and impact evaluation – should be a high priority for future activities to support BCC practice.

pants', eight questionnaires were returned from individuals who identify themselves as 'consultants'. Slightly over half of the participants who were employed by organisations are originally from low- and middle-income countries, although some are currently based in organisational headquarters in the United States or Canada. A third of the consultants are from low- and middle-income countries.

Ethical clearance and confidentiality

In planning the study we recognised that it is difficult to ask people who work for, or consult for, an organisation to describe features of organisational functioning that may be sensitive, especially when asking them to describe challenges, hopes and critique practices. In this BCC review the number of organisations and core players is small, which makes it relatively easy to identify participants. Therefore, it was essential to define individual contributions as 'privileged communication'. Although the study was not undertaken as a research project at Cornell University (Ithaca, NY), we utilised the senior author's position as a Graduate Professor in the Division of Nutritional Sciences at Cornell to request an ethical review for the human protection procedures we proposed to institute. The Cornell Institutional Review Board kindly agreed to serve this function for the study and the procedures were judged to be appropriate.

Data analysis

Participants responded to the individual questions with written statements, ranging from a few sentences to several paragraphs. The oral interviews were transcribed to produce comparable written narratives. We analysed the responses as qualitative 'text' using standard qualitative analysis procedures that involve the identification and coding of themes (Strauss 1987). Two of the authors (GP and SM) carried out the analysis independently. The level of agreement was so high that there was no need to test statistically for inter-rater reliability.

Results and discussion of practitioners' perspectives

Perspectives on one's own organisation

We asked two broad questions that were intended to give participants an opportunity to reflect on their own organisation: (1) *What are the most important ways in which your organisation contributes to BCC in IYCF?* and (2) *If you could change something within your organisation with respect to BCC for IYCF, what would that be?*

1. What are the most important ways in which your organisation contributes to BCC in IYCF?

This question implies, but does not directly request, a comparative assessment. Using text analysis, the responses were categorised by themes. Table 1 shows the themes and the number of participants who articulated each theme. The total number exceeds 24 because most participants offered more than one idea. Only two participants left this question blank. (For this section and the following sections, see online Appendix S1 for full data.)

Table 1. Themes in responses to the question: 'What are the most important ways in which your organisation contributes to BCC in IYCF?'

Theme	No. of respondents
1. Promoting and sharing a specific programme approach/tools	9
2. Research orientation	6
3. Participatory approach	5
4. Programme delivery-related issues	5
5. Orientation and outreach to other professionals in the IYCN community	4
6. Multi-sectorial activities	4
7. Using culturally sensitive and socially sensitive approach	4
8. Capacity building for BCC personnel	3
9. Communication-related issues	3
10. Multilevel activities	2

BCC, behaviour change communication; IYCF, infant and young child feeding; IYCN, infant and young child nutrition.

Promoting and sharing a specific programme approach/tools

Nearly a third of the participants felt that their approach, and the tools they employ to implement it, was their organisation's most important contribution to BCC. In addition to the contribution that is made by developing an approach, the statements make it clear that dissemination and sharing is also an important aspect of their contribution; thus, for a number of participants, the value they contribute is not only having a sound approach and the tools to implement it for their internal activities but also in making it available for other organisations to use.

The four comments, which we categorised as 'orientation and outreach to other professionals in the IYCN community', are closely related to the sharing theme as they relate to sharing one's own tools. The finding implies a degree of satisfaction with the products that the organisations and consultants have designed. If this was not the case, it is unlikely that participants would identify them as their most important contribution to IYCF BCC.

The importance participants place on the value of their programme tools suggests that in the past there was a strong felt need for systematic guidance, which a number of participants feel they have now responded to adequately.

Research orientation

Another frequent theme is the importance of conducting and promoting research. In the participant statements, research encompasses the full range of activities, beginning with formative research and particularly emphasising 'operations research' and 'evaluation'. The emphasis on having a sound technical underpinning for programmes was also included in this code. Some of the participants who emphasised the value of their own tools identified the strength of their tool as stemming from its grounding in research.

Participatory, culturally sensitive and socially sensitive approaches

The statements we have classified under the headings of 'participatory' and 'culturally/socially sensitive approaches' highlight another theme that emerged in response to the question on 'important contributions'. A number of the participants feel that a strength of their organisation is that it has become more aware of and more responsive to the communities in which they work. When these are highlighted as contributions, there is an implication that this sensitivity is not universally the case, or has not been so in the past. In other words, there is an implicit comparison between their approach, which is seen as a departure from what is perceived to be a less desirable approach.

Programme delivery, outreach to other professionals, capacity building and communication

Four of the categories in Table 1 ('programme delivery', 'outreach to other professionals', 'capacity building' and 'communication-related issues') share a common feature: they are concerned with the interface between programmes and the beneficiaries programmes are trying to reach. These categories are also closely related to issues of participatory programming and culture–social sensitivity. However, they can be distinguished from the latter because of the greater emphasis on the programmatic side of the interaction. Participants' commentaries in these categories emphasise the importance of capacity to deliver programmes, the use of sound communication techniques and several other features that improve the capacity of programmes to reach their intended beneficiaries. As these issues appear in response to the question on 'your organisation's important contributions', we can infer that the participants are approving of and pleased with the delivery-focused features they highlight.

Multi-sectorial and multilevel activities

The contributions we have categorised under the headings of 'multi-sectorial' and 'multilevel' activities indicate that some of the BCC specialists in our sample are oriented to the larger organisational structures within which BCC is conducted. These professionals highlight the activities of their organisations that relate to these larger structures because they place a high value on their importance.

Table 2. Themes in responses to the question: 'If you could change something within your organisation with respect to BCC for IYC, what would that be?'

Theme	No. of respondents
1. Increasing the role of systematic use of data and research in programme planning and implementation	11
2. Greater community participation	4
3. Scaling up issues	4
4. Inadequate staffing	4
5. More attention to specific technical areas	3
6. Lack of integration with health issues and programmes	3
7. Problems related to developing materials	3
8. Various unrelated themes	5

BCC, behaviour change communication; IYC, infant and young child feeding.

The fact that other participants did not highlight them cannot be interpreted as evidence that the organisations to which they belong do not engage in multi-sectorial or multilevel activities. We do not have the evidence to come to this conclusion. However, it is an indication that the participants who highlighted this are sensitive to the importance of the social–political organisational structures in which they work.

If you could change something within your organisation with respect to BCC for IYC, what would that be?

This general question was intended to give participants an opportunity to consider organisational weaknesses. Table 2 shows the results by our coded themes.

Increasing the role of systematic use of data and research in programme planning and implementation

The number of participants who spontaneously focused on this topic is much greater than for any other theme, suggesting that this is a highly salient issue. Half of the participants (11 of the 22 who answered this question) raised this as an issue for which they would like to see organisational change. Taken together with the finding in Table 1 (in which research is highlighted as an important positive

feature of a participant's organisation), it indicates a strong commitment on the part of BCC leadership to obtaining and using research in programme planning and implementation. It also reflects a perceived need for greater investment in formative research, monitoring and evaluation on the part of organisations that are conducting BCC. Many BCC practitioners would like to see a reorientation in their own organisations, and in the practice of BCC, to permit and facilitate what one participant termed 'not taking shortcuts' that require a greater level of time and effort.

Greater community participation

The call for more community participation, like the focus on greater use of research, is particularly striking when it is considered in relation to the related findings in Table 1 that some participants feel that their organisation's efforts to engage communities in planning and implementation are noteworthy, positive features. Some participants suggested that their organisation efforts to engage communities are not widely enough instituted or are not conducted with a sufficient level of effort.

Scaling up

An explicit focus on 'scaling up' did not figure prominently either in the narratives on 'important contributions' or 'areas of weakness'. However, four individuals did mention this in their response to the question on weaknesses. Of these four, two people suggested scaling up needs attention. One participant suggested that the organisation of programme activities in their agency does not support scaling up because the time frame for projects is too short. The other participant who mentioned scaling up raised the question of how one reconciles scaling up with the requirements for ensuring that programmes are grounded in local language, culture and context.

Staffing needs, technical focus areas and greater integration with health

A number of participants would like to see modifications in their organisations to expand the number of

staff with expertise to support BCC. Although their presence in organisations is common, it is not universal, and this is a situation that some participants felt needed to be corrected. Another area in which some participants would like to see modifications is the focus of the BCC topics in their organisations. Two of the areas that were highlighted – maternal nutrition and feeding during illness – are direct nutrition issues. The third – greater attention to water, sanitation and hygiene – is a request for broadening the IYCF BCC focus to encompass topics that often lie outside the direct purview of nutrition. This is related to the call for greater integration with health sector issues and concerns. Note (Table 1) that some participants highlighted such integration as a positive feature they considered to be a contribution of their organisation to BCC for IYCF.

Perspectives on IYCF behaviours and the practice of BCC

We asked four open-ended questions to tap into different aspects of BCC activities aimed at improving breastfeeding and complementary feeding. These questions were (1) 'What are the biggest challenges today to improve breastfeeding and complementary feeding practices across the world?' (2) 'What are the barriers to employing/implementing sound BCC approaches?' (3) 'What resources do programmes need to employ sound techniques and approaches?' and (4) 'Do you have a favoured approach and/or a theoretical orientation that guides your decisions?'

1. What are the biggest challenges today to improve breastfeeding and complementary feeding practices across the world?

The responses to this question have been coded into three broad themes: (1) characteristics and conditions that reside in society, outside of nutrition programmes, which was identified by 15 participants; (2) characteristics that are internal to current BCC practice, which was articulated by 14 participants; and (3) characteristics that involve the interface between larger system issues and BCC issues, which was flagged by 11 participants.

Here is an example of a statement that was coded in theme 1:

Addressing underlying causes of poverty, solving the problem of malnutrition is a key to breaking the intergenerational cycle that perpetuates poverty and vulnerability . . . We know that narrow sectorial strategies will not solve the problem. Social and behavior change strategies without the availability of sufficient nutritious food will be of limited benefit . . . Success depends on overcoming the many barriers that lead to poor nutritional outcomes, with the most vulnerable people facing the most challenges.

The following quote is an example of the types of responses we coded as 'characteristics of current BCC practice':

Ensuring adequate and regular supervision and motivation of personnel in the field; promoting culturally adequate messages. Passionate local staff, often volunteer mothers, are key to understanding the challenges at family level and at promoting changes in mothers' practices.

The third theme, 'characteristics of the interface between larger system issues and BCC programme issues', is illustrated in the following quote:

Projects focus too much on the health sector, and probably other sectors might be more effective to assist parents in adopting improved IYCF practices. There are still much myth information on breastfeeding, even from managers, and the WHO guidelines on CF are still unknown in many countries.

All three themes are about equally represented in the responses, and each one is of concern to at least half of the participants. Half of the participants focused on only one broad area of concern, while the others discussed two or three different sectors in which challenges reside. However, even when participants discussed only one theme they usually addressed the issues holistically, stressing the importance of multiple factors.

2. What are the barriers to employing/implementing sound BCC approaches?

The narratives that participants gave in response to the question on barriers could be captured in two broad themes: a theme related to the locus of the

Table 3. Themes in responses to the question: 'What are the barriers to employing/implementing sound BCC approaches?'

Theme	No. of respondents
Locus of barriers	
1. Funders (external to programmes)	7
2. Internal to programmes	5
3. BCC specific: service delivery personnel	5
Implementation science: research and the evidence base for BCC	
1. Lack of adequate higher level theory/knowledge	11
2. Lack of adequate formative research or application of results	3
3. Lack of approaches for scaling up	3

BCC, behaviour change communication.

Table 4. Responses to the question: 'What resources do programmes need to employ sound techniques and approaches?'

Theme	No. of respondents
1. Research related and tool related	10
2. Staff related	8
3. Communication related	6
4. Programme delivery related	5
5. BCC expertise	3
6. Policy related	3

BCC, behaviour change communication.

barriers, and a theme that can be subsumed under the general heading of 'implementation research', which involved concerns related to research and the evidence base for BCC. Table 3 shows the results.

Locus of barriers

With respect to the locus of the barrier, we can distinguish three levels: (1) external to programmes, located at the level of funders; (2) internal to the intervention programmes in which BCC occur, typically, located at the level of decision makers, particularly the intervention professionals who are involved in translating policy into programmes and in setting up and managing programmes; (3) internal to BCC practice at the level of service delivery, located at the level of frontline workers and supervisors. Each of these sources was mentioned about equally.

Implementation science: research and the evidence base for BCC

Under the general heading of the theme we are labelling implementation science, the subthemes can be categorised into three distinct codes. The first, and by far the most important subtheme in terms of the frequency with which it was identified, is the lack of adequate higher level theory and knowledge to guide BCC activities. This concern is focused on both the

theoretical–conceptual and empirically supported aspects of 'implementation knowledge'. We will take this up below in the discussion section.

The second subtheme, lack of adequate formative research or application of results in programme planning, was articulated by only three participants in response to the question on barriers. However, concerns about how to achieve more effective use of formative research were expressed in other parts of the interview (c.f. Pelto *et al.* 2015). Moreover, in the course of their narratives, many of the participants articulated a need for better systems to move from knowledge to action for IYCF interventions.

Finally, we see in Table 3 that three participants used the question on barriers to express their concerns about scaling up, and we coded this as a separate subtheme.

3. What resources do programmes need to employ sound techniques and approaches?

Often the themes on this topic, which are captured in Table 4, were preceded by a preamble about the importance of greater financial resources: 'Funding is needed to . . .' 'Money is required in order to' or 'We need financial resources in order to . . .' No one responded only with a statement about financial resources; they always went on to describe what the financial resources were needed for.

A couple of the participants explicitly downplayed the focus on funding, as seen in the following quotes:

Resources are not always the issue, but it is a matter of how they are used . . .

The essential resources are creative minds and incisive thinkers, people who are able to take a fresh look at the challenge and who are willing to leave some things out of their program because they have chosen the priorities to address.

We did not ask the participants to list only those resources that they felt were most important or to rank order their suggestions. Nonetheless, we can hypothesise that participants tend to give those that are most salient, in effect most important, from their personal perspectives. As the categories in the table are presented from most frequently cited to least frequent we see that, again, the research-/tool-related resources are very important to BCC specialists. This is followed by the concern with staffing, then by staff-related and communication-related issues. Programme delivery resources, BCC expertise and policy-related resources are also on the agenda, but have lower salience for many of the participants in our sample.

4. Do you have a favoured approach and/or a theoretical orientation that guides your decisions?

The purpose of this question was to give participants an opportunity to describe their basic orientation to BCC. It was phrased non-specifically to encourage the participant to interpret the 'domain' of the question according to her or his own perspective. The results, categorised into four themes, are presented in Table 5.

Analysing the responses to this question was a challenge. There is considerable ambiguity in differentiating 'framework/approach' from 'tools', so these

Table 5. Responses to the question: 'Do you have a favoured approach and/or a theoretical orientation that guides your decisions?'

Theme	No. of respondents
1. Specific-named theory or mix of theories	9
2. Specific-named framework or frameworks	11
3. Specific tool	6
4. Description of programme process	2
5. Other	3
Not answered	4

should not be considered definitive classifications. Some participants wrote at considerable length, while others answered with a few sentences. The narratives in some of the responses articulated more than one theme and the coding categories in this table are not mutually exclusive.

Specific named theory or mix of theories

Examples of responses that were coded under this theme: 'J.O. Prochaska, CC DiClemente: Stages of Change', (Prochaska and DiClemente, 1984); 'Rosenstock: Health Belief Model', (Rosenstock 1966); 'Green & Kreuter (1999): Precede/Proceed' or 'I use a mix of theories drawing from various sources'.

Specific-named framework or frameworks

Examples of responses coded under this theme are 'socio-ecological model', 'UNICEF Conceptual Framework' or 'Essential Nutrition Actions Framework (WHO, UNICEF, USAID)'.

Specific tool

Examples of responses coded under this theme are Designing for Behaviour Change Curriculum or 'Trials of Improved Practices'.

Description of programme process

Excerpts of examples of responses coded under this theme: '[Our organization] focuses on the programme approach, looking at the long-term development and sustainability of programs to address the needs of key target groups. We also employ data driven management and quality improvement, using the information collected throughout implementation to continue to inform and improve the program, and make important decisions. We are also working more on integrated programming, acknowledging the need for a more holistic approach to addressing critical public health issues such as IYCF and maternal and child nutrition . . .' or from another participation: 'Careful identification of the specific feeding practices to promote in each setting, using formative data to iden-

tify practices that will have the greatest impact on outcome goals and are feasible for families to adopt. Sometimes this means selecting a priority component behavior (for example, "do not give water") in order to increase adoption of the overall behavior ("exclusive breastfeeding")'.

Summary of findings from practitioners

1. BCC practitioners make extensive use of tools and programme support guidelines to structure their work. More than a third of the participants suggested that the tools and guideline materials their own organisation have created are among the most important contributions their organisation makes to BCC for IYCF.

2. For the most part BCC specialists are strongly committed to the value of research, not only to secure the intellectual underpinning of BCC work but also in practical application. A quarter of the participants said that promoting a research orientation was an important contribution made by their agency, and another half spontaneously suggested that their highest priority for change in their organisation was to increase the role of research in programme planning and implementation.

3. BCC specialists are strongly committed to respecting cultural beliefs and practices and basing programme decisions and messages on cultural and community conditions. Some practitioners advocate for community participation as a means to achieve culturally appropriate programming.

4. There is a great deal of diversity among BCC professionals with respect to the specific formulations of theories, frameworks and tools they use to guide their decisions. However, without detailed comparative analysis of these various approaches, one cannot rule out the possibility that underlying this diversity is a set of general theoretical and operational principles.

5. Many BCC professionals are concerned about the lack of a strong, higher level theoretical foundation for their work. Closely related to this concern is what they view as the weakness in the empirical research (the evidence base) for programme decisions.

Authors' reflections

In this section, we step back to add our own reflections to those of the practitioners.

Guidelines and tools for BCC

In recent years, under the leadership of WHO, major advances have been made to ensure that nutrition policy and planning activities have tools for interventions with respect to biological information about infant and young feeding (c.f. e.g. http://www.who.int/nutrition/topics/nutrecomm/en/.) Significant progress has also been made on basic recommendations on feeding behaviours (see e.g. http://www.slideshare.net/search/slideshow?q=victoria+quinnate). Evidence-based guidance for the delivery of interventions will ultimately be forthcoming, but the data to do this are not yet at hand. In the meantime, organisations draw from a diversity of various tools and guidelines.

One of the striking findings of the study is the number of tools and guidelines that are presently available, as well as plans for new ones. Equally impressive is the finding that the organisations that have developed these tools feel their tools are among the most important contributions their organisation makes to the larger BCC enterprise. They want to share these with others.

Tools and guidelines are not just important for management of programme activities. They play an important role in IYCF BCC at multiple levels. They reflect fundamental assumptions about how programmes should be conceptualised and organised. They have a major role in structuring the content of BCC activities and in programme implementation from the initial development of materials to evaluation. In short, they are an essential aspect of the heart and soul of BCC for IYCN. Thus, we can surmise that the characteristics and features of specific tools and guidelines that organisations use strongly affect how they design and practice BCC.

The widespread use and reliance on tools and guidelines for BCC practice raise a series of questions:

1. What is the content of the various tools and guidelines?

2. At what levels of detail do they describe methods and procedures for the various steps they propose? What steps do they emphasise? What do they omit?
3. How much duplication is there from one tool to another? In what areas?
4. Are the concepts on which specific approaches and tools are based clearly articulated?
5. What is the nature and degree of differences in the underlying concepts and assumptions?
6. To what extent are theoretical differences reflected in recommendations for operational procedures?

We attempted to find a comparative analysis of IYCF BCC tools and guidelines, but we were not successful in locating any. Moreover, we were not able to locate any systematic evaluations of tools and guidelines. It appears that there is no source to which organisations and practitioners can turn for information to assist their decisions about what approaches, tools and guidelines to use for specific purposes. Given the importance of tools and guidelines for IYCF BCC activities, the absence of a systematic comparison, particularly one that includes an examination of implicit and explicit concepts and theoretical underpinnings, is a serious gap. Therefore, one of the conclusions we draw from the study is the need for an analytic compendium of IYCF BCC guidelines and tools.

Programme research: the scope of research from formative research to process evaluation and outcome evaluation

Another noteworthy finding from the study is the expressed need for increasing the role of systematic use of data and research in programme planning and implementation. Despite the existence of multiple tools and guidelines, it appears that these are concerned mainly with formative research, with much less attention to 'crossing the bridge' from initial investigations to the design and development of intervention content, followed by process and outcome evaluation.

There are many practical and theoretical challenges to making efficient and effective use of programme research; the following list is illustrative, not definitive:

1. How to conduct formative research in an efficient, timely fashion
2. How to translate generic guidelines into locally appropriate recommendations and messages
3. How to test strategies using simple, but reliable, procedures
4. How to make process evaluation an integral part of programme management and supervision
5. How to build re-planning into programme activities
6. How to incorporate monitoring for impact into programme management.

Culture and community participation

The related themes of 'culture' and 'community participation' were threads throughout many of the participant narratives. We highlight below some of the implications of these themes.

1. The thrust of the participants' statements on culture highlighted the importance of creating BCC interventions that are structured in relation to local beliefs, practices and conditions. Part of the reason for attention to 'culture' is that knowledge about the culture in which the BCC is conducted is essential for translating generic recommendations into locally appropriate ones. For example, at the level of messages about the content of complementary feeding diets, a recommendation to 'feed leafy green vegetables' (generic message) is likely to be more effective if it contains the names of locally available leafy greens that are already in use in household diets. Culturally informed programming attempts to take advantage of positive cultural values and avoid confrontations with culturally sensitive negative ones. Knowledge about cultural patterns in food acquisition and preparation, household authority structure and child care are examples of other important areas of information for designing BCC programmes.
2. In view of the fact that IYCF messages are usually embedded within a larger set of public health-related communications directed to caregivers, it is important to be efficient. A review of current cultural beliefs and practices can identify generic messages about behaviours that are already so firmly embedded in house-

hold practices that they are not in danger of being eroded. Because time to communicate messages is nearly always an issue, this type of review provides guidance about the most important messages to focus on.

3. Community participation can improve the efficiency of the time it takes to achieve local adaptation in the design and content of programme organisation and materials because people from the community have insights and information. Moreover, some of these insights cannot be readily obtained, even with sensitive ethnographic interviewing. Participatory methodologies provide a means of addressing this problem. Another rationale for community participation is that it promotes 'community buy-in' and motivation to engage with the programme.

4. Information about cultural characteristics that are important for programme planning, development of materials and training are usually gathered as part of formative research. An analytic compendium of tools and guidelines (proposed earlier) should include an examination of the methods that are used to obtain cultural information. In addition to methodological soundness, the methods should also be efficient. Previously, we have suggested that improving efficiency in obtaining cultural and ecological information for programme planning could be facilitated by developing a checklist of common patterns (Pelto & Martines 1997). That is, we expect that many 'culture-specific' findings are reflections of universal experiences, or features that are shared across broad culture areas. In our view addressing this issue systematically is another priority area for sustaining and improving attention to 'culture'.

Scaling up nutrition

The phrase 'scaling up nutrition' is now widely used to denote several related goals, beginning at the macrolevel where the purpose is to establish the political and economic commitments that will bring essential resources to people and communities where poor nutrition is endemic and persistent. In addition to activities at the macrolevel, there are microlevel issues that are also referred to under the umbrella term 'scaling up'. These microlevel issues are con-

cerned with the expansion of nutrition programmes to all the groups, communities and families within countries who need them. Both macrolevel and programme-level issues were discussed in the responses to the survey.

1. With respect to macrolevel activities, the picture that emerges from the questionnaire responses is complex. Some organisations have active outreach to policy makers and others do not. This undoubtedly reflects differences in their mandates and the nature of their relationships to the larger social systems in which they operate. In some cases it may also reflect differences in priorities and orientations.

One important aspect of macrolevel 'scaling up' at the level of national policy is how nutrition interventions, including BCC activities, are organised relative to the social institutions in a society. The findings reported in our earlier publication (Pelto *et al.* 2015) showed that BCC activities for nutrition are already widely dispersed in societal institutional structures (e.g. education and social welfare ministries, as well as health). On the other hand, a number of participants felt that their programmes were still too narrowly focused on the health sector. Both of these positions may be true. They reflect differences among organisations. Also, there are probably differences among organisations in the 'degree' or 'intensity' of effort that is allocated to IYCN BCC.

All efforts to scale up nutrition through embedding BCC for IYCN in other programmes, institutions, social and BCC (SBCC) activities and venues will continue to face the difficult problems of competing demands for the delivery of nutrition messages with messages on other critical issues and behaviours. The implications of integration with health, for example, raise questions about competition for scarce 'face time' with beneficiaries, issues of beneficiary 'overload, issues of frontline worker training and supervision, and issues of professional training, as well as other challenges. These issues are not new. They predate the concept of 'scaling up' by many decades. They represent continuing challenges to nutrition BCC. It is highly unlikely that a single approach to solving them is even theoretically possible, apart from

implementing better models to address it. What is clear is that these challenges have not been given sufficient attention in programme implementation research to have produced a strong evidence base for addressing them. Leveraging research resources to examine these would be an important step towards improving the effectiveness of efforts to 'scale up nutrition'.

2. At the programmatic, microlevel, 'scaling up' IYCF nutrition faces a major challenge about how to increase coverage. As we have previously noted in a review of current BCC programme models: 'Effective, evidence-based complementary feeding behaviour change interventions (BCI) have not yet been applied on a large enough scale to improve infant and young child nutrition in populations with undernutrition' (Fabrizio *et al*. 2014). In this review, we concluded that 'effective BCI [behavior change intervention] studies used formative research to: i) identify cultural barriers and enablers to optimal feeding practices; ii) shape the intervention strategy: and iii) formulate appropriate messages and media for delivery'. These programmes are associated with delivery models that include individual counselling, face-to-face interactions and small group reinforcement, as well as community normative support. They require large financial and human resources to achieve adequate coverage.

The responses of the participants in this BCC study revealed ambiguities with respect to scaling up. On the one hand, over the course of answering the questionnaire, several participants expressed concern that BCC organisations are not doing enough with respect to scaling up. On the other hand, there is concern about how to address scaling up within the constrained financial and human resources that programmes face. In connection with the broad question: 'If you could change something within your organisation with respect to BCC for IYCF?, what would that be?' we went on to offer some possible issues. We asked, 'How would you characterise these changes in terms of phases or components of work (e.g. development, implementation, dissemination, scaling up?)'. In response to these additional queries, only one participant explicitly chose to discuss scaling up, writing:

Scaling up may be part of the problem – the idea that one BCC approach will fit (be equally effective in) an entire country, an entire population, counters the idea that messages and approaches should be tailored to specific types of people in a language and context they understand.

This statement needs to be considered in the light of current knowledge about effective BCC programmes. In recent years, there has been a dramatic evolution in BCC for IYCF, which is producing programme models to replace earlier didactic, group education approaches, including programmes that use new channels and technologies. Although the evidence base is still small, the number of carefully evaluated programmes is growing. Thus, the concern articulated by the participant quoted earlier is grounded in well-established, empirically supported research. This raises a fundamental question: where are the examples of alternative models that lend themselves to increased coverage? Where are the studies that assess alternative approaches?

3. An important aspect of current programme approaches that relates to scaling up is the use, or lack of use, of mass media. In general the use of mass media to support BCC for IYCN does not appear to be highly developed, except for a small number of organisations that are seriously exploring its potential as part of a multipronged approach. For the most part the BCC leadership in our sample does not use mass media as a primary behaviour change modality, but as an adjunct to reinforce ideas that are introduced and implemented through more labour-intensive models. A number of participants said that mass media was too expensive or did not reach their beneficiaries. However, the comments were insufficient to enable us to make generalisations about how to address this within the context of current programmes. There is an urgent need for research on the relative cost-effectiveness of mass media and individualised approaches, and most importantly, on their complementarities.

In summary, with respect to scaling up, it appears that there are important gaps that need to be addressed. A vigorous, theoretically grounded IYCF

research programme directed to identifying and testing models that are consistent with large-scale coverage is essential as the first step towards achieving goals for coverage for scaling up at the microlevel of BCC programmes. Until these are available, continued support for programmes of proven effectiveness is essential. In our view, mobilising sufficient support for both directions should be a continuing high priority for all of the players who are committed to BCC for IYCF.

The language of discourse, theories and models

In the not-so-distant past, programmatic communications with mothers, fathers, grandmothers and other caregivers were referred to as 'nutrition education'. Nutrition education was the mechanism by which programmes 'imparted knowledge' to people who lacked it. The basic assumption was that poor practices related to food and nutrition were caused by lack of knowledge or, in more enlightened policy and programme circles, by a combination of poverty and lack of knowledge. The issue of whether poverty alleviation should be taken on as a direct responsibility of nutrition interventions, or should be a totally separate enterprise, or should be undertaken through collaborative policy and programme decisions was and continues to be a subject of debate.

For a time, the phrase 'IEC', which stands for 'information, education and communication', began to replace 'nutrition education' as the phrase to describe the process of disseminating biomedical knowledge about nutrition to people in communities around the world (c.f. WHO 1997; Engesveen & Shrimpton 2007). Part of the motivation for the new phrase was that 'nutrition education' carried an image of an outmoded form of didactic communication. Also, many felt that it did not adequately convey the broader view of a more holistic approach. Once it was introduced, 'IEC' quickly replaced 'nutrition education' as the operative phrase.

In the continuing evolution of conceptualising and practicing public health interventions, the concept of behaviour change began to gain traction, and with it, the idea of 'BCC' (Glanz *et al*. 2008). Within a relatively short period of time, IEC was no longer used as

the shorthand in nutrition and was replaced by BCC. This is often modified by the specific subject of concern, hence the phrase 'BCC for IYCN'.

Another related phrase in scholarly and professional discussion is BCI (c.f. Fishbein 1995). This phrase has been used in public health for several decades, but is not widely used in nutrition. It implies the potential for multiple types of activities (e.g. economic supports, child care arrangements, marketing modifications, as well as communication activities), which together are aimed at changing the behaviours that are the end point before biological changes can occur. This usage is congruent with the point made in the introduction that 'behaviour change' is the prerequisite for any type of biological improvement because nearly all health modifications depend on behaviour. Distinguishing between BCI and BCC is particularly useful when one needs to distinguish between activities that are designed to improve nutrition conditions through nutrition-sensitive and/or nutrition-specific programmes (Ruel & Alderman 2013) and the process of engaging in communication that is aimed at changing nutrition behaviours (e.g. behaviours related to breastfeeding and complementary feeding).

Recently, another phrase – SBCC – has entered the arena, which once again modifies the language of discourse and appears to reflect a conceptual change (Golding 2012). The shift in terminology from BCC to SBCC was initiated in recognition of the need for a phrase that more clearly captures and emphasises the importance of the social context and the larger social systems that influence health, including nutrition. SBCC is intended to capture the idea that communication alone is insufficient and that a much more holistic approach is essential.

As a descriptor the phrase SBCC is grammatically ambiguous. Does it refer to social change interventions and BCC or communication to bring about social change plus communications to produce behaviour change? Is 'social' used simply to emphasise the importance of the social context and the larger social systems that influence health? Recently, two observers have noted the confusion caused by the new terminology. In 2012, Elizabeth Fox wrote 'Changes in terms have made it appear that health communication is

comprised of many different disciplines and created confusion (because) many of the terms have changed without a clear, widely shared definition or understanding among health practitioners'.

Marcia Griffiths prepared a statement, which is published as a Technical Brief on the Manoff website, to clearly define SBCC and clarify key health communication terms:

The shift in terminology from Behavior Change Communication (BCC) to Social and Behavior Change Communication (SBCC) is a recent milestone in health communication that reflects renewed emphasis on improving health outcomes through more healthful individual and group behaviors as well as strengthening the social context, systems and processes that underpin health. Yet, practitioners now use BCC and SBCC interchangeably contributing to the confusion common amongst the many terms used in health communication.

http://manoffgroup.com/documents/DefiningSBCC_000.pdf

Our mapping exercise focused exclusively on BCC. If we had asked participants about what other types of interventions are part of the programmes in which their BCC activities are embedded (e.g. food supplements, vouchers, cash transfers, health care services), this would have shifted the focus from BCC per se to SBCC and BCI. We note that many evaluations of BCC effectiveness are actually evaluations of BCI trials in which the communication component is pursued in combination with other types of interventions designed to have an impact on nutrition. To avoid ambiguity in this paper, we have retained the use of BCC because this is what we examined.

In spite of the significant shift in the language of discourse from 'nutrition education to SBCC', the fundamental idea of 'imparting knowledge' is still at the heart of nutrition communication activities. Some practitioners, particularly frontline workers, would probably say 'imparting correct knowledge' to replace the 'incorrect beliefs' that are important determinants of poor practices. Few, if any, would suggest that incorrect beliefs are the only, or even the primary, determinant of poor practices, but modifying the role of nutritionally inappropriate cultural beliefs and lack of

'correct knowledge' is, nonetheless, a central aspect of BCC activities from the perspective of many practitioners.

We think that referring to the beliefs (concepts and models) of biomedical nutrition as 'knowledge' and everyone else's conceptual maps as 'beliefs' (or even 'taboos' when they involve the proscription of specific foods) is incorrect and does not facilitate good communication policy (Pelto & Pelto 1997). The history of nutritional science is full of examples of yesterday's 'knowledge' becoming today's outmoded beliefs, as new research requires modifications, sometimes entailing significant reversals of recommended practices. Therefore, we prefer to characterise the 'communication enterprise' as comprised of interactions between different cultural and individual cognitive maps for the purpose of providing people with alternative concepts and alternative cognitive maps to consider.

Beginning from the premise that the determinants of IYCF-related behaviours include not only IYCF beliefs/knowledge and attitudes (which can be accessible through language) but also underlying values and motivations (which are sometimes difficult or impossible to consciously articulate), we would also recommend another modification to the discourse, namely expanding the concept of 'culture' to encompass values and motivations. In the sense that humans are 'culture-bearing animals', values and motivations are an integral aspect of culture. Thus, when one refers to 'cultural factors' or 'cultural determinants' of IYC feeding practices, the domain of concern extends beyond 'knowledge' and 'attitudes' to include values and motivations (c.f. Aunger & Curtis 2014).

Several of the findings from our study relate to issues of theories and models. It is noteworthy that nearly half of the participants' statements (11 of 24) spontaneously suggested that the lack of higher level theory to guide BCC work was a significant barrier to implementing sound BCC interventions. Although a few participants named a specific behaviour change theory as the intellectual foundation for their work, the majority named various nutrition frameworks or approaches, in which the theory is typically implicit rather than explicit. Some participants said they used an approach that is eclectic, drawing from multiple

theoretical sources and augmented by their own experience. Taken together, these various findings point to a serious gap – the lack of a coherent general behaviour change theory for nutrition behaviour. Thus, we conclude this section on our reflections with the suggestion that it would be valuable to have a systematic examination of the alternative theoretical structures that are available for BCC and BCI in nutrition, followed by a review of the evidence base, and suggestions for future programmatic research to begin to fill the gaps in knowledge that this exercise would reveal. We feel that such an activity is a prerequisite for initiating an informed dialogue on how to put BCC and BCI in nutrition on a stronger theoretical foundation to improve its effectiveness.

Conclusion

A primary purpose for this study was to promote dialogue among the different stakeholders who are involved in BCC and SBCC. This is a dynamic period, characterised by increased attention and activity, driven in part by the growing commitment of governments, international agencies and non-governmental organisations to more rigorously address the pervasive undernutrition that continues to be a reality for millions of people around the globe. The policy instruments to address it are expanding, but using those tools to bring about positive change is a fundamental challenge. The roles of BCC, BCI and SBCC in meeting that challenge requires concerted attention, including, we feel, attention to the issues that have been raised by this exercise.

When one thinks about nutrition BCC activities in low-income countries, an image that may come to mind is a picture of a health worker, standing at the head of a semi-circle of seated mothers, who are distracted by children playing about the circle, while the health worker refers to a pretty flip chart showing colourful pictures of healthy foods, lecturing the mothers on nutrition. The results of this study suggest that this model of BCC best practice is a stereotype from the past. Although there are certainly still group sessions at the village level, and some of them may even resemble the stereotyped image, such images are a small part of the complex,

multidimensional and often highly creative ways in which BCC for IYCF is conceptualised, organised and practiced today.

The results of this study reveal that BCC directed to infant and young child nutrition is guided by a dedicated and sophisticated community of specialists, who bring knowledge from multiple disciplines to bear in their work and the work of their organisations and agencies. They work under difficult conditions, hampered by a serious lack of financial resources, as well as inadequate theoretical foundations and empirical knowledge to guide their work. In spite of the challenges, they are committed to finding and using evidence-based knowledge to further their activities and the goals that they and everyone in the wider nutrition and public health community share. It is time to support those efforts not only through advocacy but also through expanding research that is directed to meeting their needs for a better evidence base and contributes to the development of stronger theory.

Specifically, we highlight the following suggestions, which are presented and discussed in earlier sections of the paper:

1. It would be valuable to have a systematic examination of the alternative theoretical structures that are available for nutrition BCC, followed by a review of the evidence base, and suggestions for future programmatic research to begin to fill the gaps in knowledge that this exercise would reveal. We feel that such an activity is a prerequisite for initiating an informed dialogue on how to put BCC in nutrition on a stronger theoretical foundation.

2. In addition to methodological soundness, programme planning methods need to be efficient. Improving efficiency in obtaining cultural and ecological information for programme planning could be facilitated by developing a checklist of common patterns. Moreover, some 'culture-specific' findings are reflections of universal experiences, or features that are shared across broad culture areas. In our view addressing this issue is systematically another priority area for BCC.

3. Another suggestion we propose, drawing from the study results, is the need for an analytic compendium of IYCF BCC guidelines and tools.

4. Development of tools and guidelines that cover the entire programme process, from initial landscape analysis and formative research to process evaluation and impact evaluation should be a high priority.

5. With respect to scaling up, there are important gaps that need to be addressed. A vigorous, theoretically grounded IYCF research programme directed to identifying and testing models that are consistent with large-scale coverage is essential as the first step towards achieving goals for coverage for scaling up at the microlevel of BCC programmes.

6. Continued support for programmes of proven effectiveness is essential. In our view, mobilising support should be a continuing high priority for all of the players who are committed to BCC for IYCF.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

Contributions

All of the authors were involved in conceptualizing the research and the article; GHP led the study; GHP and SLM analysed the results. All of the authors participated in drafting the manuscript and have read and edited it.

References

Aunger R. & Curtis V. (2014) The evo–eco approach to behaviour change. In: *Applied Evolutionary Anthropology*, pp 271–295. Springer: New York.

Engesveen K. & Shrimpton R. (2007) Nutrition education in the context of the United Nations Standing Committee on Nutrition Activities and Publications, 1985–2006. *Journal of Nutrition Education and Behavior* **39**, 351–356.

Fabrizio C.S., van Liere M. & Pelto G. (2014) Identifying determinants of effective complementary feeding behaviour change interventions in developing countries. *Maternal & Child Nutrition* **10**, 575–592.

Fishbein M. (1995) Developing effective behavior change interventions: some lessons learned from behavioral research. *NIDA Research Monograph* **155**, 246–261.

Fox E. (2012) Rethinking health communication in aid and development. In: *Handbook of Global Health Communication* (eds R. Obregon & S. Waisbord), pp 216–222. Wiley-Blackwell: New York.

Glanz K., Rimer B.K. & Viswanath K. (eds) (2008) *Health Behavior and Health Education: Theory, Research, and Practice*, John Wiley & Sons: New York.

Golding L. (2012) Communication for improving maternal, infant and young child nutrition: developing, implementing, and monitoring social and behavior change communication activities for a five country project. In: *2012 National Conference on Health Communication, Marketing, and Media*. CDC.

Green L.W. & Kreuter M.W. (1999) *Community and Population Health: An Educational and Ecological Approach*, 3rd edn. McGraw Hill: New York.

Griffiths M., Dicken K. & Favin M. (1996) *Promoting the Growth of Children: What Works: Rationale and Guidance for Programs (TIPS)*, Human Development Department, The World Bank: Washington, DC.

Pelto G.H. & Martines J. (1997) Ecological and cultural factors in the nutritional sector of public health programmes. In: *Proceedings of the 16th International Congress on Nutrition. International Union of Nutritional Sciences, Montreal* (eds D.W. Fitzpatrick, J.E. Anderson & M.L. Labbe), pp 218–227.

Pelto G.H., Martin S.L., Van Liere M. & Fabrizio C.S. (2015) The scope and practice of behaviour change communication to improve infant and young child feeding in low- and middle-income countries: results of a practitioner study in international development organizations. *Maternal & Child Nutrition*. doi: 10.1111/mcn.12177.

Pelto P.J. & Pelto G.H. (1997) Studying knowledge, culture and behavior in applied medical anthropology. *Medical Anthropology Quarterly* **11**, 147–163.

Prochaska J.O. & DiClemente C.C. (1984) *The Transtheoretical Approach: Crossing Traditional Boundaries of Therapy (Stages of Change)*. Dow Jones-Irwin: Homewood, IL.

Rosenstock I.M. (1966) Why people use health services. (Health Belief Model). *Milbank Memorial Fund Quarterly* **44**, 94–127.

Ruel M.T. & Alderman H. (2013) Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition? *Lancet* **382**, 536–551.

Stetson V. & Davis R. (1999) *Health Education in Primary Health Care Projects: A Critical Review of Various Approaches*. CORE: Washington.

Strauss A.L. (1987) *Qualitative Analysis for Social Scientists*. Cambridge University Press: Cambridge.

WHO (1997) *IEC Interventions for Reproductive Health: What Do We Know and Where Do We Go? Family Planning & Population Unit, Division of Reproductive Health*. WHO: Geneva.

Website references

http://www.who.int/nutrition/publications/ infantfeeding/essential_nutrition_actions/en/

http://www.slideshare.net/COREGroup1/ understanding-the-essential-nutrition-actions -frameworkvictoria-quinn5514

http://manoffgroup.com/documents/DefiningSBCC _000.pdf

http://www.who.int/nutrition/topics/exclusive _breastfeeding/en/

http://www.who.int/nutrition/topics/nutrecomm/en/

http://www.who.int/nutrition/topics/ complementary_feeding/en/index.html

http://www.who.int/nutrition/topics/exclusive _breastfeeding/en/index.html

Supporting information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix S1. Perspectives and reflections on the practice of behaviour change communication for infant and young child feeding.

Table S1. Levels within the organisation where professional BCC personnel are located ($n = 14$).

Table S2. Levels within the organisation where professional BCC personnel are located ($n = 14$).

Table S3. Types of BCC support activities ($n = 24$).

Table S4. How IYCF BCC activities are organised ($n = 24$).

Table S5. Types of programmes in which organisations work ($n = 24$).

Table S6. Types of programmes in which organisations work ($n = 24$).