



# Storytelling for persuasion: Insights from community health workers on how they engage family members to improve adoption of recommended maternal nutrition and breastfeeding behaviours in rural Bangladesh

Gargi Wable Grandner<sup>1,2</sup>  | Kathleen M. Rasmussen<sup>1</sup> | Katherine L. Dickin<sup>1</sup> | Purnima Menon<sup>3</sup> | Tiffany Yeh<sup>1</sup> | John Hoddinott<sup>1,4</sup> 

<sup>1</sup>Division of Nutritional Sciences, Cornell University, Ithaca, New York, USA

<sup>2</sup>Milken Institute School of Public Health, The George Washington University, Washington, District of Columbia, USA

<sup>3</sup>Poverty, Health, and Nutrition Division, International Food Policy Research Institute, Washington, District of Columbia, USA

<sup>4</sup>Charles H. Dyson School of Applied Economics and Management, Division of Nutritional Sciences, Cornell University, Ithaca, New York, USA

## Correspondence

John Hoddinott, Charles H. Dyson School of Applied Economics and Management, Division of Nutritional Sciences, Cornell University, 3111A MVR West, Ithaca, NY 14850, USA. Email: [jfh246@cornell.edu](mailto:jfh246@cornell.edu)

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## Abstract

Community health workers (CHWs) increasingly provide interpersonal counselling to childbearing women and their families to improve adoption of recommended maternal and child nutrition behaviours. Little is known about CHWs' first-hand experiences garnering family support for improving maternal nutrition and breastfeeding practices in low-resource settings. Using focused ethnography, we drew insights from the strategies that CHWs used to persuade influential family members to support recommendations on maternal diet, rest and breastfeeding in a behaviour change communication trial in rural Bangladesh. We interviewed 35 CHWs providing at-home interpersonal counselling to pregnant women and their families in seven 'Alive & Thrive' intervention sites. In-depth probing focused on how CHWs addressed lack of family support. Thematic coding based on Fisher's narrative paradigm revealed strategic use of three rhetorical principles by CHWs: *ethos* (credibility), *pathos* (emotion) and *logos* (logic). CHWs reported selectively targeting pregnant women, husbands and mothers-in-law based on their influence on behavioural adoption. Key motivators to support recommended behaviours were improved foetal growth and child intelligence. Improved maternal health was the least motivating outcome, even among mothers. Logically coherent messaging resonated well with husbands, while empathetic counselling was additionally required for mothers. Mothers-in-law were most intransigent, but were persuaded via emotional appeals. Persuasion on maternal rest was most effort-intensive, resulting in contextually appealing but scientifically inaccurate messaging. Our study demonstrates that CHWs can offer important insights on context-relevant, feasible strategies to improve family support and uptake of nutrition recommendations. It also identifies the need for focused CHW training and monitoring to address scientifically flawed counselling narratives.

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## KEYWORDS

behaviour change communication, community health worker, family approach, narrative paradigm, persuasion

## 1 | INTRODUCTION

Suboptimal maternal, infant and young child nutrition (MIYCN) and care practices remain important contributors to the burden of maternal and child undernutrition, morbidity and mortality in low- and middle-income countries (Black et al., 2013; Danaei et al., 2016; Graham et al., 2016; Martin et al., 2020). In South Asia, where the burden of undernutrition remains high (Chakrabarti et al., 2021; Kurian et al., 2021; Torlesse & Aguayo, 2018), material and psychosocial support from family members is often needed to improve the adoption of nutrition recommendations and prevent the interrelated conditions of maternal anaemia, low-birthweight and stunting (Bentley & Griffiths, 2003; Cunningham et al., 2015; Kumar et al., 2018; Morrison et al., 2021). Thus, programmes in the region increasingly adopt a family-focused over a mother-centric approach to improve and sustain family support for the adoption of recommended MIYCN practices (Karmacharya et al., 2017; Maselko et al., 2019; Neogy, 2010; Nguyen et al., 2018b).

Engaging family members in MIYCN often involves behaviour change communication (BCC) to motivate and guide individuals to adopt or support recommended behaviours (Martin et al., 2020). Individuals within the family have different subjective realities based on traditional roles, knowledge, motivations or outcome expectancies from adopting certain behaviours (Aubel, 2012; Martin et al., 2015; Sanghvi et al., 2013). While it is important to adapt messages to the varying subjective realities of these audiences, few studies have explored how one-on-one interpersonal counselling is tailored to persuade family members with influence on health and/or nutrition behaviours (Cunningham et al., 2019; Rinehart et al., 1998).

Fisher's narrative paradigm (Fisher, 1984) is well suited to understand persuasion strategies that capture the subjective realities of different audiences (Institute of Medicine, 2002; Lee et al., 2016a; Ma et al., 2018). In contrast to the 'rational-world paradigm' that emphasises 'logical argumentation', Fisher calls for the coexistence of argumentation with creative storytelling to persuade an audience to think or act differently. The narrative paradigm integrates all three pillars of persuasion: *ethos* (credibility of the communicator), *logos* (logical arguments or content of communication) and *pathos* (emotional impressions) to present one's audience with 'good reasons' that generate a sense of 'what is good' and 'what is reasonable' (Allen, 2017; Dainton & Zelle, 2005). Further, Fisher posits that, based on their own subjective reality, audiences may accept or reject 'good reasons' by assessing narrative coherence (whether the story makes sense) and narrative fidelity (whether the story appears congruent with one's own experience) (Dainton & Zelle, 2005). Thus, the integrative approach of the narrative paradigm offers a useful framework to understand the gaps between 'what is promoted' and 'what is accepted' in BCC interventions, as highlighted in various

### Key messages

- Analysis of narratives of nutrition-promoting, rural Bangladeshi community health workers (CHWs) suggest that behavior change communication (BCC) strategies to persuade husbands require logical and credible information (*logos* and *ethos*) to establish their support, while child-bearing women may additionally require emotional appeals (*pathos*) to adopt promoted behaviors. Mothers-in-law, who traditionally influence multiple nutrition behaviors, can be persuaded via strategic use of *ethos* and *pathos*.
- CHW communication strategies are useful in developing persuasive narratives that capture influential family members' value beliefs and outcome expectancies and promote behavior change. However, additional programmatic efforts are needed to discourage use of unscientific narratives by CHWs.

health-communication studies involving low-income populations (Hopfer, 2012; Larkey et al., 2009; Lee et al., 2016b).

Recent family-focused MIYCN interventions in South Asia increasingly involve community health workers (CHWs) who provide home-based antenatal and post-natal care in resource-poor settings (Cunningham et al., 2019; Neogy, 2010; Nguyen et al., 2018a). One such intervention was piloted in 2015–2017 as part of a cluster-randomised BCC trial that comprehensively addressed maternal undernutrition in rural Bangladesh. The trial leveraged an existing cadre of CHWs of a large nongovernmental organisation (BRAC) to additionally deliver multiple nutrition-intensive services, including counselling of family members to support improved maternal food intake, additional rest during pregnancy and breastfeeding in early post-partum (Nguyen et al., 2017). Although the intervention did not improve early initiation of breastfeeding, it significantly improved mothers' nutrition knowledge, husbands' engagement, maternal dietary diversity and exclusive breastfeeding rates within a year of its implementation (Nguyen et al., 2017). These are important achievements for an intervention in a context where suboptimal adoption of recommended MIYCN behaviours has been linked to low nutrition knowledge, poverty, inadequate family support for women and cultural norms (such as *pardah*) that limit access to maternal health and nutrition programmes (M. R. Haider et al., 2017; Islam & Masud, 2018; Kavle & Landry, 2018; Nguyen et al., 2018b; Shannon et al., 2008).

In a process evaluation of the trial, Nguyen et al. (2018a) noted that CHW training quality, knowledge and supervision scores were high across intervention clusters and the positive outcomes of the trial were

attributable to the high coverage and quality of CHW counselling. This suggests that CHWs effectively engaged family members to support improving maternal diet diversity and exclusive breastfeeding. Although counselling quality was assessed via mothers' and husbands' recall of promoted messages, an inquiry into how CHWs promoted the various messages in the field, which other family members they interacted with or their insights on whether promoted messages were acceptable was not conducted. This recognised research gap in the nutrition literature (Kavle & Landry, 2018; Warren et al., 2020) limits a full understanding of the barriers that CHWs may encounter during family-based counselling and the strategies that they may use to deal with such barriers. Our study addresses this gap by using experiential data obtained from in-depth interviews with CHWs who implemented the intervention. Specifically, we analyse CHWs' emic perspectives on family-focused counselling using Fisher's narrative paradigm to understand how CHWs framed and packaged nutrition messages to persuade influential family members to support adoption of recommended MIYCN practices.

## 2 | METHODS

### 2.1 | Study context

This qualitative study was conducted in seven of the ten rural, resource-poor subdistricts in the Rangpur and Mymensingh divisions where the maternal nutrition (MN) intervention was piloted from August 2015 to June 2017. Designed by Alive & Thrive, it included a comprehensive MN-focused intervention package that was integrated into BRAC's community-based 'Maternal, Neonatal and Child Health' (MNCH) programme (Nguyen et al., 2018a). The standard MNCH programme has been operational since 2008 through a network of salaried CHWs (*Shasthya Kormis*) and health volunteers (*Shasthya Shebikas*)—both recruited among local women. The CHWs are recruited at 20–35 years of age if they have a minimum of 10 years of education (Rahman et al., 2015). During the MN intervention pilot, CHWs from the intervention areas received intensive preservice training for 3 days on delivering MN-focused interventions and participated in monthly refresher training led by supervisors who closely monitor and support CHWs. Compared with standard MNCH areas, preservice training in the intervention areas included more topics on counselling approaches (Nguyen et al., 2018a). These were covered via role-playing and practical demonstrations (Alive & Thrive, 2017). Refresher training, which was attended more regularly in the intervention areas (Nguyen et al., 2018a), allowed CHWs to exchange successful counselling strategies, receive peer feedback and solve problems identified in the field (Alive & Thrive, 2017).

In addition to providing the standard MNCH services during monthly home visits, CHWs delivered the following MN-focused interventions: (i) trimester-specific food demonstrations on optimal maternal dietary quality and quantity, (ii) tracking of gestational weight gain and promotion of optimal rest and workload during pregnancy, (iii) promotion of age-appropriate breastfeeding practices during the first 6 months of infancy and (iv) interpersonal counselling to pregnant women (i.e., primary clients)

and family members to improve their awareness, knowledge, self-efficacy and perception of social norms, and build family support for promoted MIYCN behaviours (Nguyen et al., 2017). Although other BCC platforms such as husbands' forums and interactive media events at community gatherings were included, home visits by CHWs occurred more frequently and regularly, reached multiple family members within a household and allowed personalised counselling and reinforcement of promoted messages (Frongillo et al., 2019; Nguyen et al., 2018a). Several nutrition-promoting messages were disseminated to educate, motivate and guide behaviours in line with evidence-based MN recommendations (Table 1).

### 2.2 | Study design and participants

This study used a 'focused ethnographic study' approach that allows for a flexible inquiry into behavioural interventions (Pelto et al., 2013). The approach begins with a review of published papers and reports about an area of concern, followed by collection of data through a mixed-method approach involving open-ended questions, formal ethnographic cognitive mapping techniques such as card sorting or close-ended, survey-type questions. The advantage of this approach is that it can reveal realities from an insider's perspective on typical or usual behaviours, conditions and beliefs.

A week after the MN intervention concluded, we undertook qualitative fieldwork in June–July 2017 to explore CHW perspectives on barriers and facilitators related to family-focused IPC, including strategies that they used to improve family support for behavioural recommendations. After pretesting the interview protocol in two subdistricts, we purposively sampled seven out of the remaining eight subdistricts, which allowed us to achieve data saturation. In each selected subdistrict, CHWs were eligible to participate if they had completed preservice training, participated in at least 6 monthly refresher training sessions and delivered the MN intervention package for at least 9 months. A list of eligible CHWs was obtained from the chief programme coordinator, and five eligible CHWs were randomly selected from each subdistrict to avoid gatekeeper bias that may arise when access to employees is mediated by local or immediate supervisors (Oppong, 2013). The final sample included 35 CHWs from seven subdistricts. Ethical approval for the study was obtained from the Cornell University Institutional Review Board for Human Participants after submitting an official letter from BRAC that granted permission for this study.

### 2.3 | Data collection

The first author and a locally hired field assistant trained in qualitative methods interviewed all participants in Bangla in a designated, private room at the local BRAC office. All participants provided oral and written informed consent for audio-recording and note-taking before their interview. Each interview lasted about 60 min and was based on a pretested, semi-structured interview guide.

**TABLE 1** Subset of messages delivered during the maternal nutrition trial

Topic	Individual BCC message	Message type
Benefits of adequate maternal diet	Adequate maternal diet ensures weight gain of pregnant women.	Motivational
	Adequate maternal diet ensures adequate growth of baby inside the womb.	Motivational
	Adequate maternal diet everyday ensures quick recovery of mothers.	Motivational
	Adequate maternal diet everyday saves costs on doctor and medicine for both mother and child.	Motivational
Diet	Nutritious foods are not always expensive.	Educational
	Consume five types of food in addition to rice and thick dal daily.	Behavioural
	Consume fish/meat daily.	Behavioural
	Consume an egg daily.	Behavioural
	Consume milk/milk products daily.	Behavioural
	Consume dark green leafy vegetables daily.	Behavioural
	Consume yellow/orange fruit or vegetable daily.	Behavioural
	Consume thick dal daily.	Behavioural
Avoid tea/coffee during pregnancy.	Behavioural	
Weight gain during pregnancy	A woman should gain 10–12 kg weight during pregnancy.	Educational
Rest and workload	Take at least 2 h of rest every afternoon.	Behavioural
	Avoid doing heavy work or lifting anything heavy during pregnancy.	Behavioural
Breastfeeding	Ensure early initiation of breastfeeding.	Behavioural
	Ensure exclusive breastfeeding during first 6 months.	Behavioural
	Avoid prelacteals.	Behavioural

Abbreviation: BCC, behaviour change communication.

The interview guide and consent form were translated into Bangla, back-translated into English and pretested to improve the clarity and scope of questions. Each interview included closed- and open-ended questions, and two card-based participant activities involving a focused discussion on (i) message-specific barriers and facilitators related to the delivery of behavioural messages and perceived adoption or promoted behaviours among clients and (ii) identification of perceived motivators among mothers and influential family members to adopt promoted behaviours (Table 2). CHWs were asked to describe their counselling interactions with family members on maternal diet, rest and breastfeeding. Probing involved questions on why certain family members were targeted for counselling, receptivity of male and female family members to promoted behaviours and persuasion strategies that CHWs used to improve motivation, behavioural adoption or family support.

## 2.4 | Data processing

Audio recordings of the interviews were transcribed into Bangla and translated into English by a local translator. The first author reviewed all Bangla and English transcripts and generated final

English transcripts by incorporating additional details from field notes.

## 2.5 | Data analysis

### 2.5.1 | Coding

Transcripts were independently coded by two authors using Atlas.ti (version 8.4.4) in three phases. In the first phase, an initial coding framework was used to perform content analysis to (a) map the range of family members counselled on various topics and identify those with a direct influence on selected maternal behaviours and (b) tabulate responses to the close-ended questions designed to determine which motivational messages were most effective in convincing influential family members to adopt recommended practices. Next, thematic analysis identified emergent themes related to the barriers and facilitators encountered during counselling of influential family members and the strategies used by CHWs to address barriers. For example, subthemes under 'barriers' included CHWs' perceptions of how influential family members viewed their credibility as health promoters or feasibility to adopt promoted behaviours. Subthemes under 'strategies' included an explanation of health risks and benefits

**TABLE 2** Description of participant activities and sample questions

Purpose	Participant activity	Description and sample questions
Explore overall barriers and facilitators during delivery of behavioural messages and perceived adoption of promoted behaviours by clients.	Card-sorting exercise, followed by open-ended questions.	Participants were given a set of cards, each featuring a single behavioural message (see Table 1) for two rounds of sorting: In the first round, participants were asked to sort messages that they found difficult to deliver, and in the second round, they identified messages that they perceived as difficult for their clients to adopt, based on their interactions with clients. Follow-up questions included: <ul style="list-style-type: none"> <li>• Why was this message 'difficult'?</li> <li>• How did you overcome the barriers that [you/your clients] encountered?</li> <li>• How did you counsel your clients to address [such] barrier(s)?</li> </ul>
Identify motivators to adopt/support promoted behaviours among clients, and their husbands and mothers-in-law.	Close-ended, forced-choice question, followed by an open-ended question.	Participants were shown a set of cards, featuring individual benefits stated in the motivational messages (see Table 1), and were asked to choose card(s) in response to the following forced-choice question asked one-by-one for three family members, followed by open-ended questions: <ul style="list-style-type: none"> <li>• In your experience, which benefit convinced most [mothers/husbands/mothers-in-law] to adopt/support recommended behaviours?</li> <li>• Why did you chose that card for the [mothers/husbands/mothers-in-law]?</li> <li>• Were there any other benefits that helped in convincing clients or their family members?</li> </ul>

or use of metaphors for persuasion. An iterative process was used to discuss and refine emergent themes until both coders reached consensus on the definition of relevant codes. Exclusion and inclusion criteria for coding were established in the final version of the codebook, and early interviews were recoded once the codebook was refined. In the final phase, themes and subthemes were selected based on three principles: frequency (frequent mentions were considered important; universality (found across interviews); and 'keyness' (the theme captured something important in relation to the research question) (Braun & Clarke, 2006). Sample quotes were identified with participant number and the name of the subdistrict.

### 2.5.2 | Guiding framework

After coding for emergent themes, we applied Fisher's narrative paradigm to structure the analysis related to perceived motivators among influential family members, barriers and facilitators encountered in family-focused counselling and the strategies used by CHWs for persuasion. We used a constructionist, deductive approach to interpret emergent themes and subthemes on perceived motivators into 'value beliefs', and the use of *ethos*, *logos* and *pathos* to persuade influential family members to adopt promoted behaviours. For example, if most CHWs indicated that the benefit 'adequate growth of the baby' was a salient motivator for mothers-in-law, we interpreted this to mean that mothers-in-law potentially attached high value to the baby's health compared with other benefits promoted during the intervention. To operationalise *ethos*, we

used the theme 'perceived credibility of CHW as health promoter'. *Logos* was defined by the theme 'acceptance of message content as stated', and *pathos* encompassed themes related to linguistic strategies used to generate emotional appeal. Perceived acceptance of the counselling narrative based on *logos* was interpreted as a positive appearance of 'narrative coherence', while perceived acceptance of narratives involving *pathos* (either in combination with *logos* or as standalone propositions) was interpreted as a positive appearance of 'narrative fidelity'.

## 2.6 | Techniques to enhance rigour

We followed recommendations from Lincoln and Guba (1986) to enhance rigour on the credibility, dependability and confirmability of this study. Table 3 shows the specific strategies used to enhance rigour on these study attributes.

## 3 | RESULTS

### 3.1 | Participant characteristics

All 35 CHWs were married and had completed at least 10 years of schooling. Three CHWs had attained higher secondary or undergraduate-level education. The mean ( $\pm$ SD) age was 33 ( $\pm$ 5.6) years, and the duration of experience as a BRAC health worker was 7 ( $\pm$ 2.3) years. On average, CHWs had spent 16 ( $\pm$ 6) months

**TABLE 3** Strategies applied to achieve rigour

Rigour criteria	Purpose	Strategies applied in our study to achieve rigour
Credibility	To establish confidence that the results from the participants' perspectives are true, credible and believable.	<ul style="list-style-type: none"> <li>• Pretesting of interview guide and participant activities.</li> <li>• Random sampling to avoid gatekeeper bias.</li> <li>• Ensuring that interviewers had the required knowledge and skills to perform their roles.</li> <li>• Detailed orientation of participants at the beginning of each interview to convey that the purpose of the interview was to learn from their first-hand experience in implementing a pilot intervention.</li> <li>• Daily member checks with a locally recruited research assistant to confirm interpretation of findings from each interview and to clarify certain words or key cultural concepts.</li> <li>• Weekly debriefing sessions with coinvestigators listed on the IRB protocol, and with the BRAC programme management unit in Dhaka, Mymensingh and Rangpur before and after data collection in each subdistrict.</li> </ul>
Dependability	To ensure that the findings of this qualitative inquiry are repeatable if the inquiry occurred within the same cohort of participants, coders and context.	<ul style="list-style-type: none"> <li>• We prepared detailed drafts of the study protocol, including a script for instructing participants on the cards-based activities.</li> <li>• Detailed documentation of the steps undertaken during data collection, translation, transcription and coding in Atlas.Ti.</li> <li>• Translation and transcription included checks for accuracy, whereby English transcripts were reviewed each week by the first author and 10 randomly selected transcripts were cross-checked with the audio tapes.</li> <li>• Coding was performed independently by two coders based on a codebook with inclusion and exclusion criteria, and codes were cross-checked for each transcript during weekly meetings.</li> <li>• Both coders privately drafted analytical memos after coding each interview and discussed them weekly.</li> <li>• Participant responses were analysed using quantitative and qualitative methods to triangulate cross-participant data.</li> </ul>
Confirmability	To extend confidence that the findings would be confirmed or corroborated by other researchers and are not shaped by researcher bias or interest.	<ul style="list-style-type: none"> <li>• At every step of the research process, the first author maintained a reflexive journal to reflect on their own values, assumptions and interests and to document reasons for methodological, logistical and analytical decisions.</li> <li>• During fieldwork, the first author positioned herself as a South Asian, Bangla-speaking nutrition researcher and as a 'learner' of respondents' unique experiences on implementing a comprehensive maternal nutrition pilot. This facilitated frank communication and rapport during interviews.</li> <li>• Before and after fieldwork, the first author engaged in regular dialogue with coauthors, local stakeholders and external qualitative researchers with programmatic/research experience in rural Bangladesh to seek multiple perspectives that could help reveal and contest researcher bias.</li> </ul>

Abbreviation: IRB, Institutional Review Board.

implementing the MN trial, with a monthly average caseload of 58 ( $\pm 15$ ) pregnant women.

### 3.2 | Range of family members counselled

All CHWs reported counselling male and female adults during home visits. However, CHWs mentioned targeting family members selectively for different topics based on the nature and extent of an individual member's influence on 'mothers' to adopt promoted behaviours (Table 4). The majority of CHWs mentioned attempts to persuade

husbands and mothers-in-law because of their significant role in household decision-making as income-earners or food procurers and as chief MIYCN advisors or domestic task managers, respectively.

### 3.3 | Perceived motivators of influential family members: The role of promoted benefits

The benefit of 'adequate growth of the baby' was reported by CHWs to be the most salient motivator for all family members, while 'speedy recovery of mothers in post-partum' was seen as least salient in

**TABLE 4** Frequency distribution of the interviews in which participants mentioned including the client's family members for counselling on selected topics

Counselling topic	Number of interviews (n = 35) in which the family member was mentioned at least once						
	Husband	Mother-in-law	Sister-in-law	Father-in-law	Brother-in-law	Client's mother	Adult children
Maternal diet	33	29	7	9	1	0	0
Maternal rest/workload	14	28	9	3	1	0	1
Gestational weight gain	17	8	3	3	1	0	0
Breastfeeding in early infancy <sup>a</sup>	33	32	29	17	3	5	0

<sup>a</sup>Early infancy refers to 0–6 months of age.

**TABLE 5** CHW responses to the forced-choice question: 'In your experience, which benefit convinced most [mothers/husbands/mothers-in-law] to adopt/support recommended behaviours?'

Motivational message	Number of CHWs (n = 35) indicating whether the benefit in the motivational message appealed to:		
	Mothers	Husbands	Mothers-in-law (MIL)
<i>Adequate maternal nutrition is important...</i>			
<i>For child inside the womb to grow adequately/healthy</i>	28	25	23
<i>For adequate weight gain of pregnant woman</i>	22	18	12
<i>For saving costs on doctor and medicine for both mother and child</i>	9	20	20
<i>For speedy recovery of the mother in post-partum</i>	8	11	2
<i>Because baby will have a bright future and will bring recognition to the family<sup>a</sup></i>	2	2	6
<i>Because if the mother remains healthy, MIL will have less work after childbirth<sup>a</sup></i>	0	0	4
None of the original motivational messages were appealing <sup>b</sup>	0	0	2

Abbreviation: CHW, community health worker.

<sup>a</sup>Motivational message mentioned by CHWs in addition to original or programme-promoted motivational messages.

<sup>b</sup>Interpreted similar to the choice 'none of the above' in quantitative surveys.

motivating family members, including mothers (Table 5). Some CHWs elaborated that once the family desire to have a healthy baby was met, the new mother's health or autonomy to care for her own baby was accorded a low priority.

Mother may have the womb, but once the baby is born, it is not just the mother's baby, but also the baby of the father, grandmother, and the grandfather... meaning, it belongs to the whole family. CHW #5, Rajarhat

CHWs reported that mothers were motivated by 'adequate gestational weight gain' and 'adequate growth of the baby', but less by 'saves medical costs'. For husbands, benefits such as 'adequate growth of the baby', 'saves medical costs' and 'adequate gestational weight gain' were reported to convince them to support their wives to adopt promoted behaviours. Results were similar for mothers-in-law, but some CHWs mentioned using additional messages to motivate them (see Table 5). Two CHWs could not identify a single message that convinced mothers-in-law to support the adoption of promoted practices. Some

CHWs stated that they 'created stories' to improve support for maternal well-being by using the garb of a narrative focused on child well-being when counselling family members, especially mothers-in-law.

We would tell them [mothers-in-law] that it is ok for the mother to take rest during pregnancy and requested them to put less pressure about household work. We would try to convince them by telling [them] that it will benefit their grandchild only... we have to create [such] stories to make them understand... we have to do that in the field if we want them to accept what we say. CHW #5, Dhobaura

### 3.4 | The role of ethos: Perceptions of CHW credibility

The CHWs' descriptions of their counselling interactions with influential family members indicated variation in the extent to which

they were perceived as credible promoters of MIYCN. CHWs explained that although they were already known for their MNCH work in their communities, it primarily involved physical health assessments (e.g., measuring maternal blood pressure), with little counselling on MN and/or engagement of family members to promote social support. Thus, as expected, CHWs frequently described trust-based interactions with mothers (i.e., their primary clients), compared with their new counselling targets, that is, husbands and mothers-in-law. For husbands, several CHWs alluded to an initial resistance to accept dietary advice without material support, which led them to focus on addressing husband's financial concerns and the economic implications of allocating additional resources to maternal care. Several CHWs shared that husbands who attended 'husbands' meetings' were more likely to trust CHWs' advice over the traditional, contradictory advice of family elders. Some CHWs also believed that securing husbands' trust facilitated their own outreach to other family members.

We counseled husbands and, in that regard, 'husbands' meetings' helped us a lot... Husbands have become more aware. Fathers-in-law just follow what the mother-in-law says, so if husband and wife are equally informed, then what we say gets more importance, because everybody listens to their son or son-in-law. CHW #4, Tarakanda

By contrast, several participants discussed prolonged lack of trust from mothers-in-law, ranging from message-specific mistrust in the early stages of the programme to 'they would not let us enter the house'. A few CHWs also mentioned that some male and female elders, who viewed them suspiciously because of their affiliation with the formal health system, criticised them for promoting higher weight gain because they believed that CHWs were leading mothers to have a 'fat' baby and risk caesarean delivery at BRAC's health institutions. Some CHWs believed that resistance from mothers-in-law to their MIYCN advice could undermine the usefulness of counselling mothers in the presence of family members.

Sometimes old village women or mothers-in-law would say, 'Didn't we do all this work? Nothing happened to us! Now you come here with some outside wisdom like "don't do heavy work during pregnancy"?! Nonsense! This is how they talked back. It would make me feel like perhaps it was my mistake to discuss that message openly. By discrediting what I said in front of the mother, she would perhaps start thinking that I always give the wrong advice. CHW #2, Rajarhat

Some CHWs shared that during preservice training, they were told to expect a backlash from family elders and were trained on trust-building strategies to mitigate resistance to nonnormative behaviours. Strategies such as continuing to counsel all family members with respect and patience or attempting to build cordial

relationships with resistant family elders through 'simple village language' were frequently cited as time-consuming but helpful trust-building strategies.

### 3.5 | The role of Logos: Perceptions about the reasonability of promoted messages

As expected in low-income settings, the financial implications of adopting a promoted message were frequently cited as a household-level barrier during interviews. However, at the intrahousehold level, differences in family members' acceptance of logical reasoning also appeared to hinder adoption of selected behavioural messages. We summarise these differences by highlighting individual member beliefs and attitudes on each counselling topic below, and in the next subsection, include examples of persuasive strategies that CHWs used to improve them. Table 6 presents additional illustrative quotes on family member-specific barriers and facilitators that CHWs commonly encountered.

*Acceptance or perceived reasonability of messages about maternal diet:* CHWs reported that husbands were mainly persuaded when they heard logical arguments linking health benefits to the mother-infant dyad with family savings or reviewed 'visual proof' presented from antenatal health evaluations, including progress on gestational weight gain. Many CHWs re-emphasised husbands' appreciation of concrete examples of how locally available, low-cost nutritious foods could be procured. The CHWs thought that this was particularly important to garner husbands' continued support on this subject.

When husbands became aware of pregnancy weight gain, they realized the importance of what we were advising on weight gain. When we measured pregnant mother's weight, they would ask how much weight she gained, and determine the quantity of foods they needed to provide to her. CHW #1, Patgram

Many CHWs shared that most mothers acknowledged the logic in improving their diet to improve their own antenatal health and their baby's health, especially if they were educated. However, reliance on logic alone seemed insufficient to persuade mothers who had previously experienced a normal pregnancy or childbirth without eating better or those who adhered to the cultural practice of eating last or least:

CHW: ...it was very common that mothers did not eat an entire egg. They wanted to share half of it with their husband or son.

Interviewer: Why did they want to share it with their husbands?

CHW: Well, these are village women... they are not accustomed to eating the whole thing alone. They don't even think about it. CHW #3, Patgram



**TABLE 6** Barriers and facilitators encountered by CHWs in counselling influential family members: Emergent themes and illustrative quotes

Subtheme	Influential family member	Illustrative quote
<i>Barriers encountered by CHWs</i>		
Lack of perceived credibility in CHW as an MIYCN promoter	Husband	<i>Eat 5 types of food... In this case, they would ask, 'Where will we find all these 5 types of foods, like, fish, meat, egg, milk?' In the beginning, husbands did not want to accept our advice. They would say, 'Where will we find all these foods? Why don't you give us all these foods?'. CHW #4, Dhobaura</i>
	Mother-in-law	<i>Like it took almost 20 minutes to just make the mothers-in-law join a counseling session, I had to beg them repeatedly. They would say, 'What is there to talk about? Please go and measure my daughter-in-law's blood pressure instead'. CHW #4, Tarakanda</i>
Lack of acceptance of messages related to maternal diet	Mothers	<i>CHW: ...it was very common that mothers did not eat an entire egg. They wanted to share half of it with their husband or son. Interviewer: Why did they want to share it with their husbands? CHW: Well these are village women... they are not accustomed to eating the whole thing alone. They don't even think about it. CHW #3, Patgram</i>
	Husbands	<i>At first when we explained this to them, they asked us where they will find the money, how they can get all these foods. Then we replied that, you don't need lot of money to manage all these foods, you will be able to manage leafy vegetables and other vegetables from your village surroundings. Then milk, some people have their own cow, so they don't have any problem. And those who do not have a cow, they can enter into a 'Bandhi' [= a contractual agreement] for quarter liter of milk with the person who owns a cow and pay them monthly. If you can't pay even a week's worth, save money and try to manage money for this. CHW #1, Dhobaura</i>
	Mothers-in-law	<i>So, in many families, husbands follow their mother's word without any doubt... particularly at that time [postpartum period]...Mothers-in-law consider some foods to be dangerous for the baby, like [they believe] if the [lactating] mother eats spinach, the baby will get cold, cough, pneumonia etc... So that's why we have to keep counseling husbands, and advise them to bring all [recommended] foods. CHW #5, Mithapukur</i>
	Mothers	<i>It is problematic for the mothers; they have to do heavy work. Sometimes they live alone, so they ask, 'Who will do my work?' ...Especially those who live in small family, they have to do all the work, even if they are pregnant. They have to cook for their husband, send the children to school, have to take care of the cow or goat, have to feed them, lift the water bucket by their own. CHW #1, Rajarhat</i>
Lack of acceptance of messages promoting maternal rest	Mothers-in-law	<i>Mothers-in-law would say, 'In our times we did all types of work, and our children were born naturally; never did we need C-section or anything else'. CHW #3, Mithapukur</i>
	Mothers (and family members)	<i>Sometimes, mothers would think that they produced enough breast milk earlier [in the postpartum period], but now it is not enough. Earlier baby was cheerful, now baby is not playing, is crying, and his weight is also not increasing, so mothers start to feed extra foods. Sometimes family members also agree with that. They think there is no need to only breast feed until 6 months. CHW #3, Bodorganj</i>
Lack of acceptance of messages promoting breastfeeding	Husbands	<i>Some husbands would complain that baby keeps crying. Then we asked, how many times did the baby pee? How many times did the baby poop? But their replies would focus more on baby's crying. We advised them to feed the mother different foods, like dal, fish, and meat... if mother eats well then mother will produce more breast milk, and baby will get more milk... And we also told them, 'You don't need to spend money for the sugar to mix in cow's milk, nor do you need to spend the time to go buy cow's milk.... So do you think it's worth giving cow's milk to the baby?' CHW #2, Patgram</i>
	Mothers-in-law	<i>Because there is a mother-in-law who just does not want to understand! Many of them would argue with us, 'Don't tell us about mother's breastmilk! It does not come in until three days'. These are old women with beliefs from the past, so that creates a problem. CHW #2, Bodorganj</i>

(Continues)

TABLE 6 (Continued)

Subtheme	Influential family member	Illustrative quote
<i>Facilitators encountered by CHWs</i>		
Positive perceptions of CHW credibility	Mothers	<i>Many of them confide in us, trust us, and tried to eat better. CHW #2, Ulipur</i>
	Husbands	<i>Like if their expenses on the doctor become less, then it will be a benefit for him [husband], because his wife's and baby's expenses will reduce. It will be his benefit. They agreed to follow our suggestions. Some would actually call me on the telephone and ask me to visit again. CHW #2, Mithapukur</i>
Acceptance of messages related to maternal diet	Mothers	<i>Apa, mothers who are educated, they understand, about nutrition, protein, carbohydrate, about iodized salt, they don't say anything. They follow what we recommend. CHW #4, Bodorganj</i>
	Husbands	<i>When husbands became aware of pregnancy weight gain, they realized the importance of what we were advising on weight gain. When we measured pregnant woman's weight, they would ask how much weight she gained, and determine the quantity of foods they needed to provide to her. CHW #1, Patgram</i>
Acceptance of messages related to breastfeeding	Mothers, husbands	<i>We told the mothers to put the child to the breast within one hour, in that period, the child has a lot of suckling capacity. If they put the child to the breast within one hour of birth, then the baby will suckle, and the more the child suckles, more milk will be produced. We tell them, 'If the baby does not suckle well, elders around you will put some honey or sugary water in the baby's mouth to satisfy your baby'. And we told them, until 6 months, not a single drop of water should be given because until 6 months, the baby only needs mother's milk. Besides the temperature of breast milk is normal, it does not require any extra expense, and there will be no trouble. So mother's breast milk is safe, and can be fed any time. And this was also advertised on TV. Mothers and their husbands would tell us that apart from hearing this advice from us, they also saw the same advice on TV, so why wouldn't they follow the advice on exclusive breastfeeding. CHW #2, Tarakanda</i>

Abbreviation: CHW, community health worker.

Nearly all CHWs noted that logical reasoning, by itself, was insufficient to persuade mothers-in-law to support improved maternal diet. CHWs explained that conflicting normative beliefs on prepartum and post-partum dietary restrictions were anchored in the past experiences of mothers-in-law as child bearers, and their current experiences as traditional MIYCN advisors and caregivers. Additionally, several CHWs relayed that this challenge became more prominent in the post-natal period when husbands often retracted their engagement, leaving female elders in charge of determining what the new mother should or should not eat.

So, in many families, husbands follow their mother's word without any doubt... particularly at that time [postpartum period]...Mothers-in-law consider some foods to be dangerous for the baby, like [they believe] if the [lactating] mother eats spinach, the baby will get cold, cough, pneumonia etc... So that's why we have to keep counseling husbands, and advise them to bring all [recommended] foods. CHW #5, Mithapukur

*Acceptance or perceived reasonability of messages on maternal rest:*  
Nearly all CHWs reported including mothers and mothers-in-law (and

occasionally, sisters-in-law) for counselling on maternal rest and workload because husbands were not involved in assigning or sharing domestic tasks. A narrative solely based on logic appeared to be insufficient in persuading mothers or mothers-in-law. Some CHWs explained that mothers living away from their husbands or belonging to nuclear families often considered the advice 'take rest for 2 h' or 'avoid heavy work' as unreasonable because their daily on- and off-farm work was labour-intensive. Many CHWs reported that mothers-in-law often associated additional rest and avoiding heavy workload with undesirable outcomes such as gestational oedema, lethargy or risk for caesarean delivery.

Mothers-in-law would say, 'In our times we did all types of work, and our children were born naturally; never did we need C-section or anything else'. CHW #3, Mithapukur

*Acceptance or perceived reasonability of messages on breastfeeding:*  
Logical reasoning on all breastfeeding messages was reported to be well accepted by husbands, mothers (and brother/sister-in-law), but not by mothers-in-law (or other family elders). Several CHWs mentioned that although awareness of age-appropriate breastfeeding

had improved due to ongoing breastfeeding promotion on mass media or by other health organisations, female elders who believe that 'breast milk does not come in for the first 3 days' usually challenged translation of such awareness into action. Additionally, CHWs highlighted how the normative practice of feeding newborns prelacteals, such as honey or mustard oil, to 'sweeten baby's voice' or to 'protect baby from winter', advised by both paternal and maternal grandmothers, interfered with efforts to promote early initiation of breastfeeding. Perceived breast milk insufficiency was a commonly reported barrier for mothers to adopt and families to support exclusive breastfeeding for the first 6 months.

Sometimes, mothers would think that they produced enough breast milk earlier [in the postpartum period], but now it is not enough. Earlier baby was cheerful, now baby is not playing, is crying, and his weight is also not increasing, so mothers start to feed extra foods. Sometimes family members also agree with that. They think there is no need to only breast feed until 6 months. CHW #3, Bodorganj

### 3.6 | The role of *Pathos*: Tailoring of messages to targeted audiences

Multiple instances of *pathos*, a linguistic strategy to stir emotion, were encountered in CHWs' descriptions of their counselling narratives. Some appeared in combination with logical arguments and others as stand-alone propositions. Several CHWs highlighted building persuasion skills by learning from peers during refresher training or feedback from supervisors' visits. The following four subthemes emerged in response to asking CHWs how they packaged their advice to influential family members.

*Contextually relevant metaphors and analogies:* At least one CHW from each subdistrict alluded to using locally relevant metaphors or analogies to persuade husbands and family elders. Use of symbolic words and imagery were reported across all three topics for purposes such as reminding mothers of health benefits to their offspring from adopting promoted behaviours ('healthy tree, healthy fruit'), convincing husbands to invest in preventative maternal care ('think of it as a fixed deposit'), highlighting the importance of colostrum ('it acts like the first vaccine') or debunking cultural beliefs and practices among elders, for example:

Look grandma, when your cow gives birth, you give that animal so many foods as part of your special care, so that the cow will produce more milk for her calf. If you can take care of your animal [in postpartum], why would you feed your daughter-in-law, who has just given birth to a baby, only rice with salt and eggplant? Why? These things are outdated now. If [the nursing] mother gets more nutritious foods, mother will be healthy and will

produce more milk, and the baby will get more milk and become healthy. CHW #3, Patgram

*Making it about the baby:* Several CHWs admitted to intentionally using baby-centric narratives to tap into the common family aspiration for a healthy and 'beautiful' baby. As one CHW elegantly put it: 'If we make it about the baby, everybody agrees to everything!' (CHW #1, Ulipur). CHWs differentiated how they used this strategy across targeted audiences, that is, to build husbands' engagement in maternal care or to disengage mothers-in-law and mothers from nutrition-compromising cultural and gender norms:

I would say to my clients, 'Listen, Apa, try to eat at least one piece [of fish]'. Keep in mind that you are pregnant, and are bringing a baby into this world, so you are the one who needs to eat well. Don't worry about your family members...you have to prioritize yourself and make sure that you eat well. CHW #3, Dhobaura

*Focusing on baby's intelligence:* More specifically, many CHWs made repeated and explicit mentions of 'baby's intelligence' or 'brain development' in their counselling narratives. In discussions with mothers-in-law, baby's intelligence was linked to maternal rest and workload as well as early initiation of breastfeeding, avoidance of prelacteal feeding and premature introduction of liquids apart from breast milk. Notably, when counselling husbands, CHWs frequently linked 'baby's intelligence' to exclusive breastfeeding or consumption of animal source foods:

We would tell husbands, 'please buy foods like eggs, fish etc. for your wife to consume them every day. It will also reach your baby through breast milk. That will help develop the baby's brain. Don't you want your baby to have a good brain?... You or I did not get to become a doctor or a teacher, but your baby will have many opportunities if you take care of your baby right from the early days...'. After counseling them like this, they ensured mothers ate fish. CHW #2, Patgram

*Inaccurate but contextually appealing advice:* More than half the CHWs described narratives anchored in imaginative appeal that were scientifically flawed but effective in motivating the unmotivated. Such narratives were encountered in interviews across all subdistricts and all three topics. The strategy was frequently mentioned when CHWs described persuading mothers and mothers-in-law on the topic of rest and breastfeeding. Although CHWs accurately shared the purpose of promoting additional rest, they sometimes used flawed statements about the underlying mechanisms involved, such as 'the baby is at peace if mother rests', 'baby gets oxygen when mother rests' or 'baby's intelligence will [be] reduce[d] if the mother works constantly'. In the case of breastfeeding, they provided flawed explanations on the consequences of suboptimal practices:

Mothers-in-law would say, 'What harm can a little bit of water or honey do to a baby? The baby is crying!' So, we told them not to give even a single drop of other things, otherwise the baby's brain capacity will be destroyed. The child will not be able to perform in school. Then they would understand. CHW #2, Bodorgonj

## 4 | DISCUSSION

We analysed CHWs' emic perspectives on family-based nutrition counselling to discover how CHWs persuaded different influential family members to adopt and support recommended behaviours. While rational arguments or *logos* were important to persuade husbands, CHWs often relied on both emotionally appealing stories or *pathos*, as well as *logos*, when speaking with mothers. Rational arguments were least effective in persuading mothers-in-law, for whom CHWs had to dedicate more time towards trust-building or *ethos* and focus on emotionally driven messaging. Such strategic use of *ethos*, *logos* and *pathos* was the means through which CHWs tailored interpersonal counselling in response to their audiences' subjective realities.

Our study is among the first to document CHWs' first-hand experiences on the challenges and opportunities in persuading multiple family members to accept, support and adopt multiple nutrition recommendations. Two other studies involving counselling to improve adoption of recommended MIYCN practices have highlighted the importance of personalised counselling and tailoring of messages (Cunningham et al., 2019; Sanghvi et al., 2013). However, they differ from our study in several ways. Cunningham et al. (2019) assessed counselling skills among CHWs in relation to a structured communication protocol and included findings largely focused on counselling mothers. Sanghvi et al. (2013) documented Alive & Thrive's experience in implementing multiplatform BCC strategies tailored to mothers and influential members, but focusing solely on infant and young child feeding. Situated between the two, our analysis revealed the importance of building trust among the additional targets for MIYCN counselling within the family unit, receptivity to the logical content of BCC messages on multiple MIYCN topics among different targets and most importantly, tailoring of counselling narratives when logical content is insufficient for persuasion. It contributes to understanding why, despite extensive training and support, CHWs skip or modify certain messages (e.g., those relating to rest) while others (such as maternal diet diversity) remain intact. Additional strengths include sampling to ensure that we heard from diverse CHWs and multiple checks for data consistency and accuracy.

Fisher's narrative paradigm provided a framework for understanding how and why CHWs adapted messages to appeal to different influential family members, who may differ in their beliefs and outcome expectancies. These differences could potentially explain the variation in acceptance of the narrative coherence of

evidence-based MIYCN recommendations within families and, subsequently, within communities. For example, counselling on maternal diets included logic-driven, coherent narratives that linked enhanced diets with higher gestational weight gain and improved child outcomes, which appealed to husbands and mothers. However, such logic-driven arguments did not appeal to mothers-in-law who believed that higher gestational weight gain equates to large foetal size that can complicate delivery. Such beliefs, often perpetuated from one generation to the other, are a known barrier for improving MN in South Asia (Kavle & Landry, 2018; Sarker et al., 2016; Sedlander et al., 2018; Williams et al., 2020).

Narrative fidelity also played an important role in garnering family support. Presenting husbands with information on how to procure low-cost nutritious foods or mothers-in-law with culturally grounded metaphors to evoke a nurturant response towards mothers complemented their traditional experiences as food procurers and family caregivers, providing them with 'good reasons' to support maternal diets. However, in case of behaviours such as rest and breastfeeding, CHWs reported that emotion-based persuasion was often needed to motivate mothers-in-law and some mothers because their past or current experiences as child bearers were incongruent with the logical reasoning of the promoted messages. This is consistent with Fisher's observation that both individual perceptions of the narrative coherence and fidelity determine why certain narratives may appeal to some members over others, while other narratives, such as the unifying desire for a healthy and intelligent baby (mentioned by nearly all CHWs), motivate all family members alike. Incidentally, previous studies examining nutrition BCC programmes have also highlighted baby-centric messaging in other developing countries (Fox et al., 2019; Kavle & Landry, 2018).

Our study is limited by reliance solely on CHW accounts; understanding family members' perspectives or direct observations of CHW counselling interactions with family members would have allowed data triangulation to address potential bias arising from CHWs' recall versus what they actually delivered during family-focused counselling. Securing access to beneficiaries was not possible as this study was implemented after the intervention ended. Thus, we tried to address such bias by using focused ethnographic techniques that mix closed- and open-ended questions, allowing assessment of consistency between the quantitative and the qualitative findings. By incorporating content and thematic analyses, we were able to use methodological triangulation and develop a comprehensive understanding of CHW-used targeting and tailoring strategies to overcome known contextual barriers such as household economic constraints or unhelpful social norms. Moreover, we used the principles of frequency and universality to generate evidence from thematic analysis, some of which points to similar BCC-related barriers and baby-centric messaging reported in studies from Bangladesh and elsewhere (Cunningham et al., 2019; Fox et al., 2018; R. Haider et al., 2010; Kavle & Landry, 2018; Kim et al., 2019; Sanghvi et al., 2013). This indicates that our findings from the perspective of CHWs are reliable and relevant to programme effectiveness.

As with any study, the potential exists for social desirability bias to affect self-reported data on barriers and strategies. However, the breadth and depth of responses, including CHWs' admissions to the use of baby-centric counselling narratives to promote MN, suggested that we were successful in obtaining candid responses.

The use of cards as a projective technique helped to overcome self-censoring of responses related to topic-specific barriers faced and strategies used (or not used) in motivating and persuading intransigent family members. Presenting the messages that CHWs were trained to deliver (i.e., content) on cards also enabled focused discussions on counselling approaches rather than just content. While Nguyen et al. (2018a) have previously noted that more topics on counselling approach were included in the intervention areas, the elicitation technique of our study helped reveal the nature of these topics (e.g., counselling with respect and patience to build trust, or use of contextually relevant metaphors for persuasion) that CHWs said they learned from preservice training, but also during refresher training when they exchanged 'successful' strategies with peers.

Although an objective metric of successful persuasive strategies or other narrative approaches that consider change over time in counselling tactics can help evaluate counselling success, our study demonstrates that CHWs' subjective assessments of 'what worked' can illuminate contextually persuasive strategies and inform future family-focused BCC interventions and identify strategies that may be perceived as persuasive but are scientifically inaccurate. For the latter, supportive supervision, regular discussions on CHW challenges and strategies and continued monitoring of refresher trainings are needed so that missteps in 'adapting' the messages can be corrected and scientifically sound strategies shared. We have highlighted this in relation to maternal rest—a topic that very few BCC interventions have addressed specifically, as compared with maternal diet. While gestational weight gain monitoring was found to be an effective strategy in improving maternal diet in the current MN intervention (Nguyen et al., 2017), future behavioural interventions to improve gestational weight gain could explore use of effective and scientifically sound strategies that promote maternal rest along with healthy diets.

## 5 | CONCLUSIONS AND PROGRAMMATIC IMPLICATIONS

This study contributes to understanding of family-focused behaviour change approaches in maternal and child nutrition in low-resource settings. We identified the linkages between targeting of influential family members based on their existing traditional roles or cultural experiences and their potential to support or undermine scientifically recommended nutrition behaviours that are often resource-intensive and/or nonnormative. Cognizant of this, CHWs were creative in how they engaged resistant family members, but their approaches were not always grounded in science, which may create challenges. Importantly, our findings on how CHWs package recommendations to appeal to different family members and garner their support can inform and improve the impact of family-focused BCC programmes. That said, it is

unclear whether further improvements in the packaging of recommendations that appeal to certain family members will be sufficient when their reluctance to adopt or support these recommendations is rooted in deeply held cultural norms. Future intervention designers may consider complementing interpersonal counselling with multichannel interventions that reach grandmothers and other influential family members through group-based activities to build their trust in the health system and its recommendations, and to engage them in dialogue or reflection to improve perceptions of healthful behaviours, address gender-based expectations and shift away from harmful social norms.

### AUTHOR CONTRIBUTIONS

Gargi W. Grandner, Katherine L. Dickin, John Hoddinott and Purnima Menon were involved in the conception and design of the research. Gargi W. Grandner was responsible for data acquisition. Gargi W. Grandner and Tiffany Yeh conducted the primary data analysis. Kathleen M. Rasmussen, Katherine L. Dickin and John Hoddinott provided primary guidance on data interpretation. Gargi W. Grandner wrote the paper and had primary responsibility for the final content. Kathleen M. Rasmussen, Katherine L. Dickin, Purnima Menon, Tiffany Yeh and John Hoddinott were involved in providing detailed comments and revising the manuscript.

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### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author.

### ORCID

Gargi Wable Grandner  <http://orcid.org/0000-0001-8382-7764>

John Hoddinott  <http://orcid.org/0000-0002-0590-3917>

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