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Acceptability and feasibility of a child feeding toolkit in Mchinji district, Malawi.

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An abstract of

A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University

in partial fulfillment of the requirements for the degree of Master of Public Health in Global Health

2016

Abstract

Acceptability and feasibility of a child feeding toolkit in Mchinji district, Malawi.

By Kedera Ellah

Background: Over half (53.7 percent) of all children under 5 years in Mchinji district, Malawi are stunted. Among other factors, stunting is caused by inadequate young child feeding characterized by poor quality and insufficient quantities of complementary foods. Under the support for nutrition improvement component(SNIC) project, Concern Worldwide and the Mchinji District Council are conducting targeted research to assess the effectiveness of a child feeding bowl and slotted spoon ('feeding toolkit') to improve the volume and consistency of foods provided to children 6-23 months of age.

Objective: Formative research was conducted to assess the acceptability and feasibility of the feeding toolkit and cultural appropriateness of the counseling card among community members.

Methodology: We explored current infant and young child feeding (IYCF) practices and the acceptability of the feeding toolkit through 10 focus group discussions (FGDs) with pregnant mothers and care givers of children under 5 years, husbands to the care givers, Care Group Lead Mothers, community leaders, and healthcare workers. The focus group discussions were conducted in Chichewa and detailed field notes and summaries of discussions were collated for analysis of key themes.

Findings: Child feeding largely depends on the child's age, size, and behavior during feeding, and food availability. Mothers predominantly reported feeding two to three times per day regardless of child's age. All caregivers reported a preference for thin or watery foods starting at six months. The feeding toolkit was positively perceived as an aid for Lead Mothers and health care workers and a reminder to care givers and husbands about the quantity of food, timing and frequency of child feeding. Potential threats to the acceptability and feasibility of the feeding toolkit are lack of food, and insufficient community sensitization.

Conclusion: Young children in this community are not fed according to the WHO recommendations. Lack of illustrative devices to help caregivers in cuing volume, frequency and consistency of complementary feeding a major challenge. The perceived benefits of the feeding toolkit are a pointer to its acceptability despite the major challenge of poverty and food insecurity. Lead mothers knowledge on households makes them a better channel of distributing the feeding toolkit. The toolkit should be distributed at a subsidized cost of 100MK if not free.

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Acknowledgements

I give thanks to the almighty God for giving me the wisdom and strength to study, overcome all the academic hurdles and complete this project. I am most grateful to my wonderful academic advisors, Dr. Aimee Webb Girard, and Dr. Deborah McFarland, director of the Foege fellowship program for the invaluable advice, guidance and mentorship in this project. Many thanks to Concern Worldwide Malawi country office and Mchinji Concern office staff for all their support during data collection. I also thank all the study participants for taking their time to talk about their experiences and the research assistants for their help with data collection and translation.

Special thanks to my family and friends, especially my mother Grace Kedera and daughter Tracey Kalemera, for their moral support, encouragement and understanding.

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List of abbreviations

AIDS	Acquired immune-deficiency syndrome
ANC	Antenatal care
BCC	Behavior change communication
CIDA	Canadian International Development Agency
CWC	Child welfare clinic
CWW	Concern Worldwide
DHS	Demographic and Health Survey
DNHA	Department of Nutrition HIV and AIDS
FGD	Focus group discussion
GDP	Gross domestic product
HAZ	Height for age
HIV	Human immune-deficiency virus
IRB	Institutional Review Board
IYCF	Infant and young child feeding
LNS	Lipid based nutrient supplement
NECS	Nutrition Education Communication Strategy
NGO	Non-governmental organizations

PD	Positive deviance
RA	Research assistant
SNIC	Support for nutrition improvement component
TA	Traditional authority
UNICEF	United Nations International Children's' Emergency Fund
WASH	Water sanitation and hygiene
WFP	World Food Program
WHO	World Health Organization
WR	World Relief
WV	World Vision

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Chapter 1: Introduction.

1.0 Introduction and rationale

Undernutrition accounts for nearly 45 percent of death among under 5 children in the world (Black, 2013 #433). Currently, nearly 159 million children under 5 years in the world are stunted (UNICEF, 2015). Though global prevalence of child stunting has declined between 1990 and 2014 from 39 percent to 24 percent, the proportion of stunted children in Africa remains high, at nearly 32 percent (UNICEF, 2015). Nearly 314 million children under the age of 5 in sub Saharan Africa are stunted (Stevens et al., 2012). Child stunting is attributable to multiple factors including maternal undernutrition, inadequate and inappropriate infant and young child feeding (IYCF) practices, and infections (Prendergast & Humphrey, 2014). Other predisposing factors include low education and nutrition knowledge levels among caregivers, environmental exposures, social-cultural and religious beliefs, poor household food production practices, gender inequalities, poverty and a lack of government commitment and political will (Bain et al., 2013; Girard, Self, McAuliffe, & Olude, 2012; Victor, Baines, Agho, & Dibley, 2014). Child stunting is associated with poor prenatal and child health, poor child cognitive and mental development, increased household health expenditure and hampers both human and economic development of a country (Adair et al., 2013; Dewey & Begum, 2011; Bloem, 2013; Martorell et al., 2010).

Malawi is among the countries in sub Saharan Africa with high rates of under 5 child stunting. Approximately 47 percent of its under 5 population is stunted and it is ranked fifth in the world in child stunting (World Bank; NSO and ICF Macro., 2011). Efforts by the Malawian government to reduce child stunting are evident in its political will and commitment in support for initiatives such as scaling up of the nutrition (SUN) movement in collaboration with organizations affiliated with the United Nations (DNHA, 2013; Krebs et al., 2011). However, increasing food insecurity, childhood illnesses, widespread

poverty, inadequate water, hygiene and sanitation facilities and inappropriate and inadequate child feeding practices have slowed down progress (Chikhungu & Madise, 2014; Andrew D Jones, 2015)

In efforts to fight childhood stunting, World Bank has provided support to the Malawian government to scale up maternal and child nutrition services at community level. The Department of Nutrition, HIV and AIDS (DNHA) is leading this initiative dubbed support for the nutrition improvement component (SNIC) project. Mchinji district with a child stunting prevalence of 53.7 percent is among the 15 target districts for the SNIC project (NSO and ICF Macro., 2011). Concern Worldwide is leading implementation of the SNIC activities in Mchinji district.

To achieve the operations research objective of the SNIC project in Mchinji district, Concern is partnering with Emory University in conducting a study to assess the effectiveness of a child feeding toolkit to reduce stunting. Developed by Emory University in collaboration with Georgia Tech, the toolkit comprises a demarcated feeding bowl, a slotted spoon, and an illustrative counseling card. It is hypothesized that the feeding toolkit will help caregivers improve the volume, consistency and frequency of feeding children 6-23 months of age. This innovation may provide a solution to the child stunting problem in Malawi.

1.1 Problem Statement

Prevalence of child stunting in Malawi remains high despite efforts made through interventions aimed at changing caregiver child feeding behaviors. If creative solutions are not devised to improve feeding practices, stunting may not only reverse the progress the country has made in reducing child mortality, but will also increase the risk of impaired behavioral development among children, and increase government expenditure on health. Much as reduced frequency of child feeding and caregiver failure to measure right volume and consistency of food has been known to hinder appropriate feeding, not much attention has been paid to finding devices that can elicit change in caregiver feeding practices. An

innovative child feeding toolkit comprised of a demarcated feeding bowl, a slotted spoon, and an illustrative counseling card offer a promising solution. However, the feasibility of introducing the toolkit and the perceptions of the community about this feeding toolkit are not known. Given adequate feasibility and acceptability, it is envisioned that the feeding toolkit will help improve caregiver skills on appropriate child feeding practices thereby reduce incidences and prevalence rates of child stunting in Mchinji district.

1.2 Purpose Statement.

Given the potential benefit caregivers may derive from using the feeding toolkit, there was a need to introduce the feeding toolkit at community level. Engaging with community stakeholders to get their feedback before introduction was deemed necessary. This study explored community complementary child feeding practices and stakeholder perceptions of the innovative child feeding toolkit. The study also identified appropriate distribution channels for the feeding toolkit.

1.3 Research Objective

The overall objective of this formative research was to access the acceptability, feasibility and cultural appropriateness of the feeding toolkit among stakeholders in Mchinji district.

The specific objectives of the study were to;

1. Understand complementary child feeding practices in Mchinji district
2. Assess community acceptability and potential barriers to the use feeding toolkit and obtain feedback on the counselling card
3. Identify feasible and effective channels for distributing feeding toolkit to eligible households.

1.4 Significance Statement

A study of the effectiveness of the feeding toolkit to improve volume and consistency of complementary child feeding to reduce stunting will be implemented in Mchinji district. This formative research which aimed to assess the acceptability and feasibility of the feeding toolkit is a key component

of the effectiveness study. There is evidence of acceptability and feasibility of this feeding toolkit in other contexts, but not in Malawi (Kram et al., 2015 ; Collison et al., 2015). Findings from this study will contribute to existing evidence on the acceptability and feasibility of the feeding toolkit in low income countries. Additionally, the data obtained may provide baseline information to help refine the design of the effectiveness study and may also offer an explanation to outcomes of the effectiveness study.

1.5 Definition of terms

Feeding toolkit: A set of child feeding devices comprising a demarcated feeding bowl, a slotted sponn and an illustrative counseling card

Dietary diversity: Dietary diversity is the number of food groups or, less often, individual food items consumed over a certain time period, usually the previous day or week. Dietary diversity measured at the individual level reflects *quality* of the respondent's diet

Positive deviance: This approach is community based behavior change intervention used to restore the nutrition status of children who are moderately or severely malnourished by exposing them to identified positive feeding behaviors practiced by caregivers with well nourished children living in similar conditions (Bisits Bullen, 2011).

Food Security: Food security refers to a situation in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (The world summit 1996)

Chapter 2: Literature review

2.1 Introduction

The following literature review provides context to the aims and objectives of the this study. The review first discusses the importance of appropriate complementary child feeding practices, demonstrating the public health implications of inappropriate feeding practices in Africa and other settings. Second, the literature review provides an overview of strategies promoting complementary child feeding and their limitations. Third, the literature review explores child stunting in Malawi and efforts made to reduce stunting. Last, the review reveals gaps in the interventions and provides a justification for why and how the proposed intervention will help in changing caregiver child feeding practices and hence reduce stunting

2.2 Complementary feeding

Complementary feeding refers to the timely introduction of safe and nutritious foods in addition to breastfeeding, and focuses on the period between 6-23 months of age (Imdad, Yakoob, & Bhutta, 2011). Complementary child feeding guidelines recommend on-demand breastfeeding until 2 years of age or beyond, introducing small amounts of food at 6 months and increasing gradually as the child gets older, gradual increase of food consistency and variety and increase in the number of times the child is fed (2-3 meals per day for infants 6-8 months of age and 3-4 meals per day for infants 9-23 months of age, with 1-2 additional snacks as required) (WHO, 2003a). Appropriate complementary feeding during the first 1,000 days from pregnancy to the child's first two years of life is essential. Existing evidence indicates that a child's early developmental processes occur during this period and inappropriate feeding may cause growth faltering which could have irreversible and permanent consequences (Martorell, Khan, & Schroeder, 1994; Lundeen et al., 2014). For example, studies have shown that linear growth failure during this period can continue to accumulate past two years even while height-for-age Z scores seem to improve

(Lundeen et al., 2014). Thus timely, adequate, appropriate and right quantities of food for children 6-23 months are recommended to prevent growth faltering (WHO, 2002.).

2.2.1 Consequences of inappropriate complementary child feeding

Inappropriate complementary child feeding is associated with increased infections and poor growth and development also known as stunting. Stunting indicates a failure to achieve one's genetic potential for height. A child is considered to be stunted and thus chronically malnourished if his height-for-age is below two standard deviations of the WHO's child growth standard median (WHO, 2006). While most stunting occurs between 6-23 months when caregivers introduce complementary feeding, evidence indicates that stunting begins in utero (Dewey & Begum, 2011; Victora CG, 2010)**.**

2.3 Causes of child stunting

Predictors of under five child stunting are multiple. The immediate predictors include poor nutrient intake during the prenatal period and first two years of life and recurrent child infections (Prentice, Moore, & Fulford, 2013; Krebs et al., 2011). Evidence associates stunting with consumption of diets low in nutrients. For example, a study assessing dietary diversity among children in Bangladesh found that stunting in nearly 50 percent of the children was associated with consumption of less diversified diets (Rah et al., 2010). Similar findings were reported from a cross-sectional study in Ethiopia in which 33 percent of stunted children were found to have consumed less animal source foods, fruits and vegetables (Baye, Guyot, Icard-Verniere, & Mouquet-Rivier, 2013). Appropriate meal frequency has also been reported to be an important predictor of child stunting. For instance, in a case control study in Nepal, children who were fed less than 4 times per day were found to be 3.6 times at increased risk of child malnutrition than those fed four or more times (Paudel, Pradhan, Wagle, Pahari, & Onta, 2012). Similarly,

inappropriate feeding among 57 percent of children 6-23 months of age in a rural district in India was linked to low meal frequency (Sinhababu et al., 2010)

Recurrent illnesses among young children especially, diarrhea, malaria and HIV have been associated with stunting. Earlier studies assessing the effect of diarrhea among Guatemalan children reported a 6.3 percent higher growth in length among children with low prevalence of diarrhea than those with a higher prevalence of diarrhea (Martorell et al., 1975). Similar findings were reported from a study in Gambia (Rowland, Cole, & Whitehead, 1977). In addition, the effects of HIV on child growth have been observed and reported in both developed and developing countries. Evidence indicates that HIV infected children are 1.64 cm shorter at birth and 2.2 cm shorter at 18 months of age compared to the unexposed children due to factors like oral candidiasis that impede food intake (Moye et al., 1996; Feucht, van Bruwaene, Becker, & Kruger, 2016). Further, research has shown that recurrent episodes of malaria in young children affects linear growth. A study assessing the effect of malaria episodes on growth of Peruvian children aged 0-72 months, found that an incident of malaria resulted in a 0.070 cm and 0.083 cm less linear growth at intervals of 4 and 6 months respectively (Lee et al., 2012). Moreover, young children exposed to foods contaminated with norovirus or rotavirus such as meat, vegetables and fruits are at a higher risk of food borne illnesses. Studies indicate that food contaminated with norovirus accounts for 45 percent of food borne illnesses like diarhea in children under 5, hence contributing to stunting (Kirk et al., 2015; Victor et al., 2014)

Although poor nutrient intake is the main predictor of stunting, several contextual factors influence child growth (Stewart, Iannotti, Dewey, Michaelsen, & Onyango, 2013). For example, a study assessing sanitary practices of Kenyan slum dwellers and fecal contamination of domestic water sources found that most of the water used in preparation of child food was contaminated with fecal matter, hence facilitating

spread of diarrheal diseases (Kimani-Murage & Ngindu, 2007). Similarly, a study investigating the increasing prevalence of stunting among under 5 children in a rural region of Armenia found poor hand washing practices to be associated with stunting despite nutrition interventions by World Vision (Demirchyan, Petrosyan, Sargsyan, & Hekimian, 2016). Further, environmental enteropathy increased risk of stunting among young children in Bangladesh due to lack of pit latrines (Trehan & Manary, 2015; Trehan, Kelly, Shaikh, & Manary, 2016). Additionally, the effect of household food production strategies on child health cannot be underestimated. A review of household food production strategies links limited ability of poor households to provide diversified quality diet to child stunting (Girard et al., 2012)

Caregiver social demographic characteristics including education level and nutrition knowledge, autonomy and cultural beliefs predict child stunting (Khan, 2010 #504). Whereas caregiver education level has a positive effect on complementary feeding practices and improved health status (Shi & Zhang, 2011), nutrition knowledge is associated with improved breastfeeding and reduced growth faltering (Bhutta, 2008 #370). Although, studies report mixed findings, gender dynamics and household power affect child health and nutrition. For example, while findings from a study in Guatemala associate inappropriate child feeding practices with lack of autonomy and decision making power among caregivers (K. Brown et al., 2016), no relationship was established between caregiver autonomy and child nutrition in a study conducted in northern Kenya (Brunson, Shell-Duncan, & Steele, 2009). Similar findings emerged from a cross sectional study exploring the interplay between gender dynamics and intra-household bargaining power, and dietary decisions among the masai communities in Kenya (Pilla & Dantas, 2016). However, findings from a study in Malawi indicated that extended family members such as grandmothers influenced what and how a child was fed. (Bezner Kerr, Dakishoni, Shumba, Msachi, & Chirwa, 2008).

2.3.1 Consequences of child stunting

Child stunting has both short and long term negative consequences on the child, household, community and country (Black et al., 2013; Dewey & Begum, 2011). Stunting increases the risk of recurrent infections in children hence increasing household expenditure on healthcare (Dewey & Begum, 2011); (Casale & Desmond, 2016; McDonald et al., 2013). Further, evidence indicates that early childhood stunting continuous into adulthood and has implications on prenatal and neonatal health (Adair et al., 2013). For example, stunted women (<145cm) are at a higher risk of obstetric complications which may have implications on pregnancy outcomes (Lawn, Cousens, & Zupan, 2005). Apart from adverse pregnancy outcomes, compared to children born to women with a height greater than 160cm, children born to stunted women have a 60% increased risk of death (Ozaltin, Hill, & Subramanian, 2010). Further, evidence indicates that stunting impedes proper cognitive and mental development in children, lowering their schooling ability and hence their economic productivity in adulthood (Bloem, 2013; Martorell et al., 2010). Some studies have also reported a likely association between childhood stunting and increased risk of chronic diseases such as diabetes, hypertension and obesity in adulthood (Adair et al., 2013).

Most of the effects of stunting are preventable, but some are irreversible and permanent. Hence, intervening before and when most of stunting occurs may contribute to a reduction in stunting. A window of opportunity for prevention thus exists in the period from pre-conception until the first two years of life (Bhutta et al., 2013; Victora CG, 2010)

2.4 Determinants of complementary child feeding

Complementary food intake is influenced not only by the child's characteristics but also by caregiver feeding behaviors and characteristics of the diet (WHO, 2003b). The "what" and "how" much a child consumes is dependent on a child's behavior during feeding, food preference and acceptance,

appetite and sex. For example, a study in Ghana found that the number of times a caregiver changed food type during feeding was associated with childs' acceptance of the food (Pelto, Martin, van Liere, & Fabrizio, 2015). A similar finding exists in a study among Mexican children who prefered certain types of food regardless of quality (Monterrosa, Pelto, Frongillo, & Rasmussen, 2012).

Caregiver characteristics including education level, autonomy, workload and self-efficacy also determine how a child is fed (WHO, 1998). Whereas the time devoted to child feeding is dependent on caregiver workload, education level has been associated with improved ability to understand and adopt appropriate feeding practices (Stewart et al., 2013). Further, studies have shown that though grandmothers play a significant role in child feeding, lack of autonomy and decision making regarding nutritional choices among caregivers affects child feeding (K. Brown et al., 2016; Aubel et al., 2012).

Characteristics of a diet including energy density, nutrient content, variety and organoleptic characteristics such as aroma, taste and thickness determine a child's intake (K. H. Brown et al., 1995). While energy density of complementary food determines the amount a child consumes, studies indicate that both energy density and amount of food influence the number of times a child feeds per day (Bennett et al., 1999) ; (K. H. Brown et al., 1995). All these factors affect complementary feeding indicators such as meal frequency, dietary diversity and amount (K. H. Brown et al., 1995; Nordang, Shoo, Holmboe-Ottesen, Kinabo, & Wandel, 2015; Ickes, Hurst, & Flax, 2015).

2.5 Strategies to improve complementary feeding

In efforts to improve appropriate child feeding practices and hence reduce stunting, several strategies have been utilized. These include Nutrition education, food security, food fortification and food supplementation and positive deviance approach.

2.5.1 Nutrition education

Components of nutrition education intervention include training of community health workers and facility based health care workers, caregiver counseling and home visitation. Different behavior change communication techniques have been integrated in nutritional educational interventions to stimulate change in caregiver feeding practices. Behavior change techniques used to promote child feeding include instructional, performance based such as demonstrations, problem solving and use of social support (Briscoe, 2012 #441)

Evidence of effectiveness of nutrition education interventions exists from studies conducted in different countries. For instance, in a community based pilot nutrition education intervention in China, nutrition knowledge levels among caregivers improved after exposure to nutrition education compared to the unexposed group (Guldan et al., 2000). Similarly, in a cluster randomized trial in China, caregiver adoption of better feeding practices including improvement in food density, meal frequency and hygienic practices after participating in an education intervention reported a 0.66cm gain in length among infants compared to the control group (Shi, Zhang, Wang, Caulfield, & Guyer, 2010). Comparable findings were reported from similar cluster randomized trials in India and Bangladesh, (Vazir et al., 2013; Roy et al., 2005). Egually, a review of education interventions targeting facility based healthcare workers improved caregiver child feeding practices such as provision of energy dense foods, diversified diets and increased frequency of feeding (Sunguya et al., 2013).

Although nutrition education interventions have proved effective in promoting caregiver adoption of appropriate child feeding practices, gaps in knowledge and practice still exist. For example, a formative research conducted in Nepal revealed poor child feeding practices existed due to insufficient knowledge of complementary child feeding among caregivers (Locks et al., 2015). Similar findings were reported

from a study assessing barriers to IYCF in Uganda (Nankumbi & Muliira, 2015). On the contrary, studies conducted in Zambia and Ghana reported high caregiver knowledge of critical aspects of complementary feeding, however feeding practices remained sub-optimal (Katepa-Bwalya et al., 2015). Further, an evaluation of education interventions in china, revealed gaps in cultural sensitivity of messages and lack of integration with other resources and hence the low impact (Shi & Zhang, 2011). Moreover, not all behavior change techniques integrated with nutrition education have been effective in eliciting change. For instance, an evaluation of these techniques reported acceptance of new information is subject to approval from the wider society and demonstrations can only be effective if cues that elicit a desired behavior are identified (Briscoe & Aboud, 2012)

2.5.2 Food security strategies

The overall goal of food security strategies is to increase availability of food through increased household production, and ensure access to food for food deficit households. In nutrition interventions the goal of food security is two fold; to improve diet diversification through better crop and animal husbandry practices and to increase the nutrient content of crops through biofortification. Agricultural interventions implemented in various countries include home gardening, animal husbandry, acquacullture, and biofortification. These agricultural interventions have succeeded in improving household food production, diet quality, empowered women and communities, and increased vegetable and fruit production (Webb, 2014 #505). Biofortification of crops such as the orange fleshed sweetpotato has been however has shown to improve vitamin A among children in Mozambique (Low et al., 2007).

While, these strategies have been effective in increasing household food production and consumption, evidence suggests they can only be sustained if integrated with behavior change communication (Nair, Augustine, & Konapur, 2015). Further, the effect of home gardens and animal

husbandry on improved feeding behaviors cannot be ascertained due to their small coverage and lack of well-defined nutrition objectives (Ruel & Alderman, 2013). Similar findings are reported from an analysis of agricultural nutrition interventions in Senegal which did not have specific nutrition objectives even though they aimed to improve food security and increase dietary diversity (Lachat et al., 2015). Moreover, a review of agriculture interventions revealed that these interventions succeeded in promotion of specific crops but there was no evidence of change in diet, and little effect on prevalence of stunting and wasting (Girard et al., 2012; Masset, Haddad, Cornelius, & Isaza-Castro, 2012). Exceptions are those projects that integrate high protein foods or biofortified crops such as the orange fleshed sweetpotato (Webb Girard, 2012). Programs that seek to address multiple underlying determinants by integrating education, food security strategies and health care access are rare, though preliminary findings suggest they can have measurable impacts on child's diets, vitamin A intake and child stunting.

2.5.3 Food fortification and supplementation

Food fortification refers to the addition of micronutrients to prosessed food locally or industrially and aims to improve the quality of complementary food while ensuring promoting consumption (WHO, 2011) . Use of supplements such as mineral powders and lipid based nutrient supplements (LNS) are used to improve the nutrient quality of complementary foods. However, evidence on their effectiveness is yielded mixed results. Even though earlier studies in Mexico reported a 1.1 cm increase in length among children participating in a fortified nutrient intervention (Rivera, Sotres-Alvarez, Habicht, Shamah, & Villalpando, 2004), current studies reveal food fortification programs improve intake of micronutrients being promoted resulting in a decline in the deficiency status among the exposed but they have little or no effect on stunting (Martorell et al., 2015). However, suplementaion has been shown to have some positive outcomes. For instance, in a study in Colombia, it was found that supplementation reduced the negative

effects of diarrhea on young children preventing growth retardation. (Lutter et al., 1989). Similarly, in a randomized control trial in rural Haiti, there was a 0.3 percent increase in linear growth among children consuming lipid based supplements compared to the control group (Iannotti et al., 2014). However, in Malawi two different studies assessing the effect of lipid based nutrient supplement on linear growth, reported mixed findings (Maleta et al., 2015; van der Merwe et al., 2013). Uncertainities thus exists on the effect of nutrient supplements on child stunting.

2.5.4 Positive deviance/hearth approach

. Positive deviance approach is a community based behavior change intervention used to restore the nutrition status of moderately or severely malnourished children by exposing them to identified positive feeding behaviors practiced by caregivers with well nourished children living in similar conditions (Bisits Bullen, 2011). The approach is recommended for communities with an underweight prevalence of 30 percent however food secure with homes in close proximity to each other. This approach has been implemented by World Vision and Save the Children in countries like Honduras, Vietnam and Guatemala and Pakistan. This approach has had both successes and limitations. Findings from a cross sectional study in Vietnam reported an improvement in stunting among children who participated in growth promoting program compared to those who did not (Mackintosh, Marsh, & Schroeder, 2002). Further, in a case control study in Pakistan, PD approach helped identify and promoted behaviors like positive feeding, caring and health seeking among that were rarely practiced among Afhan refugee families (Lapping, Schroeder, Marsh, Albalak, & Jabarkhil, 2002). Despite the observed positive outcomes, PD is limited by some factors. A systematic review conducted on programs utilizing the positive deviant approach reported improvement in child nutritional status in some countries, however expected outcomes in other settings were not achieved (Bisits Bullen, 2011). For

example, in a study assessing the impact of the positive deviance approach on child feeding practices in Vietnam, the outcome was less than expected due to failure to adhere to protocols, a lack of understanding of the intervention by the program managers, and limited participation by the caregivers (Pachon et al., 2002).

Despite all these strategies, little impact has been observed possibly due to prevalent poor hygiene and sanitation conditions in developing countries (Stewart, 2013 #432). For example, while food safety is an important factor in food preparation, studies show that most of the water used in child feeding is contaminated with among other substances fecal matter (Kimani-Murage & Ngindu, 2007; Knappett et al., 2011). Further, poor hand washing practices among caregivers was identified as a major risk factor for stunting in a study conducted to determine the causes on increasing prevalence of child stunting in Armenia (Demirchyan et al., 2016)

To further improve on IYCF practices, a holistic approach that is interdisciplinary and multi-sectoral, focusing on contextual factors inhibiting adoption of appropriate feeding practices is needed (Stewart et al., 2013). While, (Ruel & Alderman, 2013) recommends strengthening nutritional goals in agricultural interventions, (Cole et al., 2016) stresses the importance of gender participation and (Briscoe & Aboud, 2012) proposes behavior change interventions that help caregivers identify cues that can elicit a desired behavior. Further, stakeholders in Africa emphasize implementation of effectiveness interventions involving communities for direct evidence of impact (Holdsworth et al., 2015). Thus the study on effectiveness of the feeding toolkit is in line with these recommendations.

2.6 Child stunting in Malawi

Malawi has the fifth-highest child stunting rate in the world, with 47 percent of children under the age of 5 stunted and 20 percent severely stunted (NSO and ICF Macro., 2011). A study conducted in

Malawi investigating growth retardation found that on average, children were 10 centimeters shorter compared to the WHO growth standards (Dewey, 2009 #445). The study also revealed that almost 20 percent of the children were stunted at birth, 20 percent of the stunting occurred during the first 6 months, 50 percent occurred between 6-24 months and 10 percent occurred during the third year (Dewey & Huffman, 2009). Comparable to this are findings from the Malawi DHS, which reported 61 percent of children 18-23 months are stunted and 25 percent between 6 and 8 months (Macro., 2011). (Fig. 1)

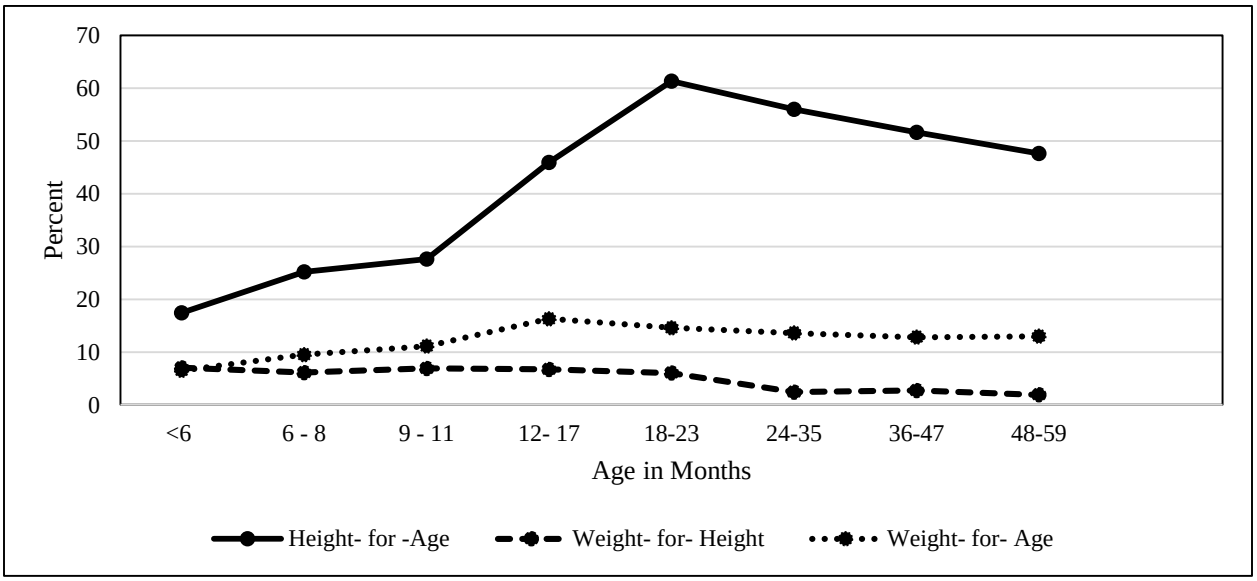
Stunting in Malawi is attributable to sub optimal infant feeding practices, diets lacking in energy, protein and micronutrients, limited access to nutritious food. Contextual factors contributing to stunting include unhealthy cultural beliefs and practices, inadequate knowledge among caregivers, in appropriate advice from extended family, seasonality and household poverty and food insecurity (Thakwalakwa, Phuka, Flax, Maleta, & Ashorn, 2009; Chikhungu & Madise, 2014). It is estimated that 17 percent of the Malawi population is food insecure and nearly half of the population is poor with one quarter living in extreme poverty (MALAWI, 2015; World Bank, 2015). These factors contribute to the low child feeding indicators in Malawi. According to the Malawi DHS report of 2010, 19 percent of children between 6 and 23 months of age receive a minimally acceptable diet, 29 percent receive the minimum diet diversity and 54 percent achieve the minimum meal frequency score(NSO and ICF Macro., 2011).

Several studies conducted in Malawi have reported caregiver characteristics, cultural beliefs and food characteristics contribute to inappropriate feeding and hence stunting. For example, while (Kerr, Berti, & Chirwa, 2007) found that grandmothers influenced early consumption of complementary foods due to cultural beliefs, (Kalanda, Verhoeff, & Brabin, 2006) reported caregivers low literacy levels influenced child feeding. Other studies have reported non-compliance to instructions among caregivers even on special foods meant to reduce malnutrition (Kodish, Aburto, Nseluke Hambayi, Dibari, & Gittelsohn, 2016; Ashorn et al., 2015). In addition, poor child care due to cultural beliefs and practices

such provision of different concortions to children and sexual abstinence during child feeding affect health (Flax, 2015).. Studies have also shown that food characteristics such as flavor, texture and taste influence acceptability and food intake. For example, in supplementary feeding, foods of thick consistency are preferred by children because of pleasant taste and less spillage during consumption (Wang et al., 2013)

The effects of child stunting in Malawi are evident from a study conducted by the ministry of planning in collaboration with world food program and other partners which reported that 60 percent of adults in Malawi suffered from stunting as children.(WFP, 2015). Due to this, it is estimated that Malawi loses nearly 10 percent of its total gross domestic product to child stunting.

Figure 1: Nutritional status of children by age in Malawi (Percentage of children classified as having a height-for- age, weight-for-height and weight-for-age Z-scores below-2



Data source: DHS Malawi, 2010 report

2.6.1 Interventions promoting complementary child feeding in Malawi

In order to tackle the challenge of malnutrition, Malawi joined the Scaling Up Nutrition Movement (SUN) and the 1,000 Days partnership, which focus on reducing undernutrition in children during the

critical window from pregnancy to a child's second birthday DNHA (2013). The SUN movement supports the Malawian government in implementing the social and behaviour change interventions that include 1) promotion of breastfeeding and appropriate complementary feeding through development of infant and young child counselling cards, child health days and nutrition education, 2) capacity building of health workers in nutrition, 3) micronutrient and de-worming interventions that provide a range of supplements for children under the age of 5 years, pregnant women and the general population and 4) complementary and therapeutic feeding interventions that consist of provision of fortified and/or enhanced complementary foods for the prevention and treatment of moderate malnutrition among children 6-23 months of age. United Nations (UN) agencies such as UNICEF, Feed the Future, World Vision (WV), Food and Agricultural Organization (FAO), World Food Program (WFP) and World Relief (Krebs et al.) have been active in Malawi supporting implementation of the Malawi National Nutrition Education and Communication Strategy (NECS) through various programs. Utilizing the existing government structures and the care groups, these agencies have engaged communities in efforts to reduce stunting.

As a result of these and other health interventions, Malawi has made remarkable progress in improving child health outcomes as evidenced by the reduction in infant and under-five mortality. Currently, the under 5 mortality rate stands at 112 deaths per 1000 live birth down from 234 deaths per 1000 live birth in 1992 (NSO and ICF Macro., 2011). However, progress in reducing child stunting has been slow (NSO and Macro., 2011). The World Health Assembly has identified the achievement of a 40 percent reduction in under 5 stunting as the goal for the year 2025 (WHO, 2014). For Malawi to realize this goal, increased efforts to develop practical and scalable approaches are needed to improve diet and complementary feeding behaviors for children under 2 years.

2.6.2 Care groups in Malawi

Most organizations implementing behavior change nutrition interventions in Malawi have utilized the care group model. Care groups have been utilized for over 10 years in different countries (Laughlin, 2004). Care groups are peer-based health promotion programs that seek to motivate behavior change and improve health outcomes in low-resource communities. A care group comprises 10-12 female volunteers, each responsible for 10-15 households. These volunteers are selected by the community based on their availability, willingness to reach out to the mothers, ability to share messages that promote health behaviors and capacity to use information education and communication materials and participatory behavior change methods to bring about change (Perry et al., 2015). While evidence suggests that the care group model can be effective if implemented under the right conditions, they can also have a multiplier effect that can bring about large and rapid health and nutrition changes practices in communities leading to improvements in child health outcomes among other benefit (George et al., 2015) Furthermore, evidence suggests that care groups are more cost-effective and sustainable than the regular community health worker structure (George et al., 2015). Based on this evidence, Concern currently utilizes the care group model to deliver culturally appropriate nutrition education and counseling through home visits.

2.7 Development of the feeding bowl and spoon.

In an effort to help caregivers improve on the volume of food given to children 6-23 months, a child feeding bowl was developed by the Manoff Group. Building on this initial concept, Emory University in collaboration with Georgia Tech developed a nutrition toolkit consisting of a feeding bowl, slotted spoon and counseling card that extends the concept of the bowl from volume alone to also include frequency, consistency and diversity. The bowl also extends beyond the infant to include the mother's diet needs during pregnancy and lactation such that the entire 1000 day window is captured. The bowl prototypes were developed using the general programmatic recommendation of one extra meal per day

(~400-500 extra calories) for women during pregnancy and breastfeeding (16) and the guidelines of Dewey and Brown for adequate meal volume and frequency for breastfed infants, (6-23 months of age) assuming average breastfeeding and medium energy-density for complementary foods (Dewey and Brown (2003) The medium-energy density estimation was used because the spoon would prevent the provision of low-energy density / thin foods. The spoon slot size was determined using the thicknesses of locally relevant complementary feeding porridges (ie, maize porridge, known as *uji*) of varying energy densities. The slot size deemed most appropriate for ensuring adequate thickness was 0.3 cm. Multiple prototypes of the bowl were rendered using SolidWorks, a 3D modeling program and printed on a 3D Stratasys Dimension sst1200es printer (Eden Prairie, MN USA). Preliminary research and refinements to the bowl, spoon and counseling card were made based on inputs from Sudanese and Ethiopian mothers with young children and with maternal and child health and behavior change communication experts residing in Atlanta, Georgia at CARE and Emory University. The final prototypes of the bowl and spoon used in Western Kenya were produced in food grade polypropylene via a protomold® injection molding process by Proto Labs, Inc (Maple Plain, MN USA). The counseling card messages and images were adapted from the nutrition and infant and young child feeding counseling materials used in government hospitals in Kenya. (Fig.2)

Figure 2: The feeding bowl and spoon (image reprinted with permission from A. Webb Girard, granted on April 4, 2016)

The complete feeding toolkit consists of a bowl with demarcations and symbols corresponding to the nutritional needs during pregnancy, lactation, and complementary feeding along with a slotted spoon and an illustrative counseling card. The demarcations and symbols on the bowl are an indicator to the mothers of the amounts of extra food required for themselves during pregnancy and breastfeeding and the frequency and amount of food needed by children at 6-9 months, 9-12 months, and 12-24 months postpartum. The slotted spoon cues the appropriate thickness of the food. The toolkit was field tested for acceptability and feasibility in Western, Kenya and Bihar, India. The results obtained from these pilots studies demonstrated community acceptability of the feeding toolkit. Mothers perceived numerous benefits following use of the toolkit including perceived own and child weight gain, increased energy of themselves and their babies, and the ability to feed the appropriate amounts and frequency of meals (Kram et al., 2015; Collison et al., 2015). However, these studies did not assess the quantitative benefits of the

feeding toolkit to confirm the caregivers' perceptions. This calls for a more rigorous study to assess the effectiveness of this feeding toolkit in improving children's health.

2.8 Overview of Support for the Nutrition Improvement Component (SNIC) project

Support for the Nutrition Improvement Component (SNIC) is a five year project funded by the World Bank and CIDA to enhance scale up of maternal and child nutrition services at the community level in Malawi. The goal of the project is to reduce child stunting and maternal and child anemia. It is being implemented by the government of Malawi through the Department of Nutrition and HIV and AIDS (DNHA). The project aims to reach 126, 341 women of reproductive age and 93,382 children under 5 with particular emphasis on the first 1,000 days of a child over a 5-year period. The SNIC project is being implemented through partners. In Mchinji district, Concern Worldwide is the lead implementing partner. The project has five main strategic objectives

1. Increase capacity building and orientation for district officials, health facility staff and frontline health workers
2. Increase access to a minimum package of nutrition services for pregnant and lactating women and children under 5
3. Improve quality of WASH and integrated post-partum family services
4. Improve coordination and enabling environment and
5. Strengthen monitoring, reporting and operations research

Concern is interested in improving the capacity of Lead Mothers to provide improved nutrition education and counseling and the capacity of mothers to act on recommended practices. Thus Concern is collaborating with Emory University to conduct operations research to evaluate the potential effectiveness of the feeding toolkit on improving volume, frequency and consistency of complementary feeding for infants and young children aged 6-23 months in Zulu, Mkanda and Mduwa traditional

authorities in Mchinji district. The operations research will evaluate the effectiveness of the feeding toolkit by comparing two types of interventions; (1) an approach where caregivers of children 6-23 months of age receive the complete feeding toolkit comprising a demarcated feeding bowl, slotted spoon and illustrated counseling card in addition to nutritional counseling and (2) an approach where caregivers receive only IYCF counseling and the counseling card.

Concern recognized the value of formative research to inform the development of the pilot effectiveness study. Thus from April-August 2015 the author designed and implemented a qualitative formative research assessment to gain insights on the acceptability and feasibility of the feeding toolkit and the cultural appropriateness of the design of the counseling card prior to roll out to eligible households. These findings and relevant recommendations based on this formative research, are reported here. These findings and recommendations have been provided to Concern and used in the refinement of counseling materials, development of lead mother training and the development and implementation of the monitoring and evaluation strategy for the pilot study.

Chapter 3: Methodology

3.1 Introduction

The purpose of this section is to discuss in chronological order the steps undertaken to implement this study. The study was cross-sectional and qualitative and was conducted between July and August 2015. The aim was to gather community perceptions of the feeding toolkit. The discussions also aimed to understand the community knowledge of infant and young child feeding practices in the community and influencers of these practices.

3.2 Study sites and population.

Study sites were selected based on geographic characteristics, existence of Concern trained Lead Mothers, health promoters and Care Groups. Zulu and Mkanda traditional authorities in Mchinji district were selected to participate in the study and represented the peri-urban and rural settings respectively. This was to allow comparison of views from participants in both the peri-urban and rural settings.

In order to obtain rich data, based on studies conducted elsewhere, different categories of community members who directly or indirectly influence child feeding practices were included in the study. These included

1. Caregivers of infants 6-23 months of age and pregnant women.
2. Husbands to caregivers of infants 6-23 months of age and pregnant women.
3. Lead mothers in care groups from the two traditional authorities
4. Community leaders comprising administrative and religious leaders, women representatives, farmers, businessmen and community health promoters.
5. Facility based health care workers from health facilities within Zulu and Mkanda traditional authorities

3.3 Sample size and selection

Because the study aimed at learning about community knowledge and practices regarding infant and young child feeding as well as understanding their perceptions of the feeding toolkit, a sample size of 10 focus groups comprising different community members was deemed adequate to collect rich data.

Selection of participants was based on various criteria. The caregiver selection was based on whether they belonged to a Care Group, had at least one child under 2 years and was willing to participate in the discussions. The Lead Mothers were selected from different care groups within the TA's, while community leaders comprised different categories including the local provincial administrators, religious leaders, women leaders and health promoters. The health care workers comprised different cadres of health care workers including health surveillance assistants, antenatal care nurses, nutrition officers and in-charges of the two health facilities. Concern community outreach officers coordinating activities in the two TA's and the respective community health promoters mobilized participants for this study. A convenience sampling approach was used in the recruitment of participants for the study.

3.4 Study design

The study was cross-sectional and qualitative and was conducted between July and August 2015. The aim was to gather community perceptions of the feeding toolkit. The discussions also aimed to understand the community knowledge of infant and young child feeding practices in the community and influencers of these practices.

3.5 Instrumentation

Focus group discussion guides were developed in English by the Emory team in collaboration with Concern and translated into Chichewa. The discussion guides were designed to target various categories of participants. However, common in the four discussion guides were topics on beliefs about maternal nutrition, infant and young child feeding practices, influencers of maternal and child nutrition,

acceptability of the feeding toolkit and potential delivery platforms for the feeding toolkit. Additional questions about interventions to improve maternal and child nutrition in the district were included in the facility based health care workers discussion guide. The questions about acceptability of the feeding toolkit focused on the utility, aesthetic appearance, design and its cultural appropriateness.

3.5.1 Training of research assistants

The Mchinji Concern office facilitated the recruitment of four research assistants to support the study. The research assistants were university trained and had extensive experience in conducting qualitative research. They participated in a two day training that focused on understanding the study purpose and data collection tools. The sessions were also used to educate the RA's on the feeding toolkit so they could explain to the participants during focus group discussions. The team also reviewed the discussion guides and the consent forms agreeing on the translations in Chichewa. Initial testing was conducted and amendments of the discussion guides made during the training. Back translation was done to ensure validity of the discussion guides.

Prior to data collection, the research team conducted a pre-test of the discussion guides**.** The aim of pre-testing was to acquaint the research team with the discussion guide and to ensure that the phrasing of questions was understood by the participants, the questions captured the objectives of the qualitative research and the duration of the administration of the discussion guides was within the prescribed time. A pre-test of the guides was conducted with three groups of participants; 1) pregnant women and caregivers of children 6-23 months, 2) Lead Mothers and 3) community leaders in Mduwa traditional authority which is not participating in the study. We revised the discussion guides and the consent forms after the pretest. We further reviewed the translation in Chichewa, reorganized questions in part B on the feeding toolkit to increase logical flow, and rephrased questions that seemed ambiguous.

3.6 Data collection

Data were collected through focus group discussions due to their suitability in exploring community opinions as well as in providing community level information about cultural values, values, practice, norms and community factors that influence behavior. Focus group discussion guides were developed in English by the Emory team in collaboration with Concern and translated into Chichewa. Discussion guides were designed to target different categories of participants and included topics related to beliefs about maternal nutrition, infant and young child feeding practices, influencers of maternal and child nutrition, acceptability of the feeding toolkit and potential delivery platforms.

For the purpose of this paper, we focused on demographic characteristics of the participants, IYCF practices in this community, influencers of child feeding and acceptability of the feeding toolkit. Questions on acceptability of the toolkit focused on the utility, aesthetic appearance, design and cultural appropriateness. The feeding toolkit which comprises a demarcated feeding bowl, a slotted spoon and a counseling card was introduced to the participants in each discussion group. The moderator of the discussion explained the purpose and utilization of the feeding bowl and spoon before the discussions in this section began

One focus group discussion was conducted with each target group in each TA for a total of 10 focus group discussions. The number of participants in FGDs ranged from 4 to 15. The discussions were facilitated by a two-person team, a moderator and a note taker and lasted from between one and a half to two hours. The FGDs with caregivers, their husbands, the Lead Mothers and community leaders were conducted in a central place in each of the selected TA's .One of the discussions with facility based health workers took place at the Concern office in Mchinji and the other took place at the Mkanda health Centre.

The discussions included a set of activities especially for caregivers, Lead Mothers, community leaders, and husbands to better understand their perceptions regarding influencers of maternal and child

feeding and nutrition, and the milestones at which to introduce different foods for a child. A brief session on the feeding toolkit was held before discussion on the kit. All discussions were conducted in Chichewa, the preferred language of the participants. Extensive probing was done to explore issues in each topic area to improve on the reliability of the information. Detailed field notes were taken during the discussions and later translated into English. The FGDs were not recorded, hence, verbatim transcripts are not available.

3.7 Data analysis

The detailed notes taken by the research team during the discussions in Chichewa were translated to English while maintaining a few phrases in Chichewa. The detailed field notes were then organized under the main themes/topic areas of the discussion guides. Analysis of the discussion notes was done manually by organizing the data into a matrix. Themes were listed in column headings and comments from each focus group discussion were included under each heading. This arrangement facilitated examination of a full range of practices, opinions and beliefs among the sample population. The system also provided a picture of beliefs, practices and opinions that were common as well as those that were more individualized. An iterative approach was used during the analysis.

3.8 Ethical considerations.

This qualitative research was part of a larger study whose research protocol and consent forms were reviewed by Concern and Emory University IRB and approved by the National Health Sciences Committee in Malawi. The informed consent forms in both English and Chichewa were used to request consent to participate from all the participants. As outlined in the study protocol, the research team explained the purpose of the study and read the consent form to each group before the discussions begun. This allowed participants an opportunity to ask questions for clarification and make informed decisions

about participation. No personal or sensitive questions were asked of the participants during the discussions.

3.9 Study limitations and delimitations

1. The number of days allocated to the study was not sufficient to conduct interviews, and translate and provide detailed notes. This issue was further aggravated by the frequent power failures in Mchinji district which hindered completion of the work as per the schedule. As a result not all the notes received were complete and typed.
2. The study was limited by its sampling method. The convenience sampling technique may not have generated findings generalizable to the population in as much as the participants were selected from the target groups.
3. The study employed only focus group discussions.Conducting indepth interviews could have yielded more qualitative data and greater insights into the topics of discussion than what was obtained from the focus group discussions alone.

Findings

4.1 Introduction

The formative research extensively explored factors that will promote and/or inhibit the acceptability and feasibility of the feeding toolkit to improve infant and young child feeding practices in Mchinji district. This chapter details findings from the study. It is divided into three main parts as per the study objectives. The introductory provides an overview of the characteristics of the study participants and the first section describes IYCF practices in the community. The second describes community perceptions regarding the feeding toolkit and the proposed amendments and the third part focusses on the cost and delivery platforms of the feeding toolkit.

4.2 The study population

The focus groups for both urban and rural setting ranged in size from 4 to 15 participants; each group included a mix of ages and education levels. A total of 103 participants, 63 females and 40 males, participated in FGDs. The ten FGDs were divided into two equal groups as per geographical characteristics.

4.3 Infant and young child feeding practices in Mchinji district

The findings under this objective are broken down into four main sub sections. The first sub section focuses on infant feeding from birth to 6 months, followed by foods given to children 6 to 23 months of age. The second section focuses on amounts of food given, and the third section looks at the frequency of child feeding. The last section centers on the influencers of infant and young child feeding.

4.3.1 Infant feeding from birth to 6 months

Questions in this section were specific to care givers and Lead Mothers. Care givers and Lead Mothers were aware of the guidelines regarding infant feeding from birth to 6 months. All participants mentioned that breast milk was the only recommended food and that breastfeeding should be initiated within the first hour after birth. However, a section of care givers mentioned not initiating breastfeeding

immediately after birth due to cultural expectations after birth such as cleansing themselves before putting the baby to the breast. A woman after birth is perceived to be' dirty' and hence healthcare workers advice mothers to clean themselves first. Despite awareness of the importance of exclusive breastfeeding for the first 6 months, in practice, caregivers are challenged. They expresses time to feed the child as a limiting factor due to their involvement in other domestic chores such as cooking and fetching water, and productive activities such as working on their own farms, providing casual labor and going to the market. Caregivers also believed that if they continued breastfeeding, without getting enough food to eat, they will "grow thin" (lose weight) and hence not produce sufficient milk for the infants. Health care workers confirmed that caregivers terminate breastfeeding before 6 months due to poverty and cultural beliefs. For instance, if a woman conceived before the breastfeeding child attained an age of 6 months, she is not allowed to continue breastfeeding, as it is believed the child will get "kutumbidwa" (sick). A section of the participants' mainly Lead Mothers and caregivers from the urban setting mentioned infants are given water, gripe water and magnesium to ease stomach pains if an infant cried continuously. Water is particularly provided before 6 months as caregivers believe the child's throat gets dry from not taking water and for "kuti matumbo azi masuke" -- to allow the intestines to function properly (open the stomach). For the latter point, it was mentioned by the lead mothers and caregivers that traditionally, some caregivers give water in which intestines of "mwiri", a wild cat, are dipped to open the stomach and support "kuti matumbo azi masuke". As mentioned earlier, it is believed that this "special" water eases stomach pain and stops a child from crying. Therefore, caregivers do not exclusively breastfeed because other than breast milk, vaccinations and medications, they introduce other liquids to the infants within the first 6 months.

4.3.2 Common complementary foods for children 6 to 23 months

To understand the common complementary feeding practices, participants were asked to name all the foods that are usually fed to young children at different ages. All participants mentioned a child starting 6 months should be fed on foods from the six food groups. However, poverty and household food insecurity impede practice as mentioned by the health care workers from the rural setting.

In terms of foods introduces to children at 6 months, participants in all groups mentioned thin/ watery porridge maize porridge (mgaiwa) seasoned with groundnuts flour or soy porridge. Although the specific age at which these foods are introduced was not stated, many caregivers introduced solid foods earlier than 6 months as mentioned by the healthcare workers. Liquids like water, milk, juice, "mahewu" (milk bought from the shops), and "thobwa" (sweet beer) are also provided. Nsima (stiff dough made from corn flour), legumes like beans, soya beans roots and tubers such as cassava, sweetpotatoes and potato become part of the child's diet. Fruits like mangoes, guavas and oranges though seasonal may also be provided. Flesh foods mainly beef, fish, mice and poultry are introduced at 9 months onwards. Though forbidden during pregnancy, eggs are introduced at 9 months, together with green leafy vegetables like pumpkin leaves, rape and mustard. However, these flesh foods and vegetables are only fed to children in the form of stew, no solids. From the discussions there was no clear delineation of specific foods by age. Further there were some noted contradictions about certain foods in terms of whether they were provided to young children, delayed or forbidden. For example while some participants mentioned that "phala lamadzimadzi" (soft nsima), potatoes, cassava, and paw paws were fed to infants as young as six months, others stated that they should be delayed because they are thought to be hard to swallow and likely to choke the child. Lead Mothers and caregivers also stated that while a child is introduced to solid foods, breastfeeding has to continue (mwakathithi). However, Lead Mothers staed that children 6-23 months are generally poorly fed due to poverty and lack of time to feed the child. During this period, many caregivers

are usually engaged in other activities within the home such as gardening, fetching water or activities outside the home including provision of agricultural labor to raise money to purchase food for the family. Participants mentioned a variety of fruits, vegetables, proteins and carbohydrates that can be used to feed a child. However, the practice is different as much of what the child is fed on are carbohydrates. There is little provision of proteins, especially flesh foods and vegetables in the children's' diet. Generally, the children's' diet is limited and lacking diversity.

4.3.3 Amount of food given to children 6-23 months.

Participants in all groups concurred that the amount of food fed to a child should be the "right size" deemed enough for the child. However, they could not easily specify or estimate what the "right size' or amount of food is. They overwhelmingly cited a lack of measuring devices to estimate amounts given. Nonetheless, they mentioned the amounts given depend on the form in which the food is provided, the age of the child, the body size of the child and the amount usually consumed by the child. Other factors determining the amount of food given are food availability and seasonality. Some participants specifically the caregivers and husbands provided some examples of how they estimate the size of food given to a child. For example, if the food given is in solid form like 'nsima" then one handful is considered an adequate size for the child in a day in addition to porridge and if in liquid form such as "mahewu" (milk), sweet beer and watery porridge, then caregivers use a drinking cup to estimate amounts. These approaches used by caregivers for estimating amounts could be faulty. Husbands particularly stated that caregivers may not rightly estimate the" size' of the child and the "right size" of food which could result in underfeeding, overfeeding or food wastage. With this kind of estimation, the amount of food given to a child may not be adequate to support normal growth and development.

4.3.4 Frequency of feeding children 6-23 months

Responses on frequency of child feeding varied across all groups. There was no distinct pattern with regards to the frequency of feeding a child ages 6-9, 9-12 and 12-23 months. While some participants mentioned a child from 6-9 months is fed twice a day others stated three times with continued breastfeeding. However, caregivers and Lead Mothers in particular mentioned receiving advice from health care workers on feeding a child in this age range four times a day. There was no clear distinction between feeding frequency of a child 9-12 months and 12-23 months as most were fed 2-3 times per day. The number of times a child is fed in a day is influenced by food availability in the household and type of food. Specific reference was made to nsima and porridge on which children are commonly fed. Care givers introduced "phala madzimadzi" (soft nsima) to children as young as 6 months "making it thicker as the child grew older. Phala madzimadzi is fed to a child once in a day while porridge is given twice in a day. Snacks such as sweetpotato, biscuits are provided in between meals only if "zotolatola" (available). Typically, a child fed three times a day is given porridge in the morning, nsima with "ndiwo" (relish) for lunch and dinner which was not specified.

4.3.5 Consistency/thickness of food given to children 6-23 months

The first foods fed to children in this age group are usually thin/watery. The consistency of the food gradually increases as the child gets older. While there were variations in the age at which the consistency of food is increased, a majority mentioned 9 months. Participants felt that at this age it is difficult for a child to swallow thick food. Although caregivers provide thin/ watery foods they believe are easy for the children to swallow, they deny them the sufficient energy required for proper growth and development.

4.3.6 Sources of information on infant and young child feeding

In all the focus groups, participants were questioned using different techniques to identify the main influencers of infant and young child feeding in the community. Participants in all the FGDs named facility based health workers, grandmothers, Lead Mothers, health promoters and the husbands as the sources of information of IYCF. Facility based healthcare workers and grandmothers were mentioned as the key sources of health and nutrition information and advice on child feeding by all participants. In as much as Lead Mothers and husbands thought grandmothers were a strong source of support to caregivers due to their perceived knowledge, practical experience, influence over young caregivers with limited or no experience on IYCF, some husbands community leaders preferred healthcare workers for providing counsel to the caregivers due to their professional training, wide knowledge and experience of nutrition. Care givers mentioned extended family members such as aunts, husbands and mothers in-law as their immediate advisors while they trusted and preferred advice from the health care workers. Caregivers specifically mentioned their husbands as a source of support but not information. Lead Mothers mentioned other sources of information to caregivers including Concern through the networl of lead mothers and health promoters and “Mwaimwana”, a mother and child support project in Mchinji district. As part of concern, the Lead Mothers and health promoters have been trained in nutrition and advice on caregivers on various health issues including hygiene and sanitation, safe food preparation with emphasis on how to prepare nutritious porridge from a mixture of maize, soya beans, beans and groundnuts.

4.4 Acceptability of the feeding toolkit

This section presents findings on the acceptability and feasibility of the feeding toolkit. The findings are divided into five sections; perceptions of the design of the feeding toolkit, perceived benefits, motivating factors influencing acceptability, factors that may hinder feasibility and proposed modifications to the toolkit with emphasis on the counseling card.

4.4.1 Perceptions of the design of the counseling card.

Generally all participants were content with the size and background colors used on images on the card. Howevr, lead mothers from the rural setting thought it could be enlarged for visibility should it be used to educate a large group of caregivers. While Lead Mothers and husbands thought the images printed on both sides of the card would be effective in communicating the messages, community leaders thought the size of the images on the card were rather small. A concern also expressed by Lead Mothers from the rural settings. All participants expressed knowledge and clarity of messages being communicated on the card. For example, caregivers' form the urban settings stated the key messages on the card including how to prepare food for the child, how to measure the correct amount of food to give to the child at different ages and how thick the food should (the food should be thick enough not to pass through the slots of the spoon). Other messages included hygienic practices before, during and after child feeding depicted in the use of clean utensils and clean water treated either by boiling or using water guard before using it for making baby food or drinking.

Other messages mentioned relate to feeding during pregnancy and lactation, emphasizing the extra meal that should be eaten. The community leaders and Lead Mothers linked the color of food in the feeding bowls on the counseling card to different types of food produced and consumed in the community. The grey/whitish color was associated with nsima/porridge, brown with sweet potatoes/meat and green with the green vegetables. All participants correctly identified the different kinds of food at the bottom of the card and confirmed their availability in the community. Although they were able to identify the key messages from the counseling card, all the participants felt the card was missing some essential food items that are culturally appropriate and regularly consumed in the community. The missing food items included insects like *mphalabungu, ndumbi, mafulufute, ziwala,* and *nkhululu*, soya beans, ground nuts, cassava, mangoes, oranges guavas, goat meat, rabbits and mice. The health care workers suggested grouping the

food items and labelling them for easy understanding. The Lead Mothers and caregivers from the urban settings preffered chichewa to English headings on the counseling card. Overall, all participants felt the counseling cards' content and design was appropriate in achieving the intended purpose.

4.4.2 Perceptions of the design of the feeding bowl

Majority of the participants liked the shape, color and size of the feeding bowl. While some participants perceived blue or green as a better color, caregivers were comfortable with the white color, as it would help them maintain hygiene, and shows clear marks at which to estimate amounts of food. All participants felt that design of the bowl was appropriate for the intended purpose due to its color, demarcations, symbols and transparent characteristic. The community leaders from the rural setting equated the shape of the bowl to the intended user; small at the bottom and large at the top. This means that the bottom part is for smaller infants and so on up to the top for the mother.

In terms of utility, focus was on the quality of the feeding bowl and the ease of giving the required volume, holding the bowl during feeding and giving food to the child according to the required frequency. Overall quality and ease of utilization of the feeding bowl were appreciated by all the participants. Majority viewed the bowl as strong and hence durable and clearly showed features that will cue mothers on volume and frequency of child feeding according to age. The caregivers also observed that the feeding bowl resembled other plastic bowls sold on the market hence adoption may be fast. The husbands particularly mentioned that the feeding bowl will help reduce food waste as the caregivers will know exactly how much food to offer according to the demarcations on the bowl.

4.4.3 Perceived benefits of the feeding toolkit

Overall, translating knowledge on complementary child feeding into action was predorminantly perceived as a key benefit of the feeding toolkit by all participants. Positive consequences (contribution to reducing malnutrition) that would result from adoption of the feeding toolkit were mentioned by all participants. This included correct child feeding in terms of amount of food, consistency of food and frequency of feeding.

4.5 Motivating factors influencing acceptability of the toolkit

4.5.1 Perception of the problem.

Whereas it was not clear whether other groups perceived undernutrition as a problem in this community, health care workers collectively did terming it a public health concern that needs to be addressed. While programs like health education and provision of food supplements to address child undernutrition with support from various organizations have been initiated in the district, healthcare, workers stated the problem had persisted due to poverty and inappropriate caregiver child feeding practices. Disruption in the feeding of children enrolled in such programs occurs due sharing of rations provided by other family members due to lack of food. Lead Mothers, on the other hand seemed to acknowledge the existence of the problem, as they mentioned that caregivers often failed to adhere to recommended feeding practices.

4.5.2 Perceived personal benefits.

All the participants cited a personal benefit they anticipated with the use of the feeding toolkit. While Lead Mothers perceived the feeding toolkit as an aid for counseling caregivers during home visits health care workers believed it would help in counseling caregivers on appropriate complementary child feeding at the health facilities. The husbands and caregivers mentioned that the toolkit will help them in remembering the number of times to feed a child as well as measuring the thickness and amount of food,

to feed a child at different ages. On the other hand, husbands cited reduced expenditure on food as a benefit if the care givers reduced food wastage by following the demarcations on the feeding bowl and instructions on the counseling card. The community leaders alluded to the possibility of the feeding toolkit helping families know when to introduce complementary food, and the amount and frequency of child feeding.

4.5.3 Design of the feeding bowl

The Lead Mothers and caregivers in particular equated the shape and size of the bowl to other "plastic" bowls sold on the markets and used for child feeding. This made the bowl more compatible with what is already in use and thus adoption could be faster. However, the feeding bowls differed from the bowls sold on the market in size, material used and demarcations

4.6 Factors that may affect feasibility of the feeding toolkit

During the discussions, participants cited directly or indirectly some of the factors that may hinder feasibility of the feeding toolkit. The factors are mainly related to preparatory activities for roll out of the intervention, perceived challenging in caregiver utilization of the toolkit.

Participants mentioned the following underpinning activities as being important in the study; community sensitization, training of the Lead Mothers on the feeding toolkit, and educating the eligible households on how to use the toolkit.

4.6.1 Challenges in utilizing the feeding toolkit

The participants mentioned directly and indirectly some of the perceived challenges caregivers may face if they were to use the feeding toolkit. While discussing this topic, the husbands directly mentioned the need to educate caregivers on how to use the bowl and spoon. They felt the design of the bowl was illustrative enough, however some caregivers may get confused on the amounts to offer at different ages. The health care workers had a similar concern emphasizing the need for community for

community senzitization before roll out. The husbands from the urban settings further mentioned repurposing of the bowls by caregivers to serving relish, measuring local brew and drinking instead of using it for child feeding, hence reiterating the need for continued sensitization and education. Lead Mothers fears in caregiver utilization of the feeding bowl were related to household food insecurity and poverty. The inability of the households to purchase basic household items like soap to clean the bowls will cause "kuthimbilira" (staining of the bowl), inadequate feeding due to failure to provide nutritious food in the right quantities. Cultural feeding practices such as communal feeding could hinder adoption of the feeding bowl as mentioned by community leaders and health care workers.

4.7 Proposed modifications to the counseling card

In order for the counseling card to fulfil its purpose, study participants proposed the inclusion of regularly consumed foods such as groundnuts, cassava, sweetpotatoes, potatoes, soya beans, beans, goat meat, beef, rabbits, pork, mice and insects such as *nkululu, mphalabungu, ndumbi, mafulufute, ziwala* . Insects were mentioned as an alternative source of protein to beef, chicken and fish which participants especially from the rural thought were too expensive. They also proposed inclusion of fruits such as oranges, guavas and mangoes grown in the region though seasonal. They also proposed the use of better images to distinguish between the carrots and sweetpotatoes. The facility based health care workers felt it would be more useful to organize the food items on the card according to the six food groups label them.

4.8 Cost and delivery platforms

Through the discussions, we explored best methods of distributing the feeding toolkit to eligible households and cost that would facilitate adoption. There were divergent views on who to entrust with the responsibility of distributing the toolkit to eligible households. For well-organized distribution of the feeding toolkit to eligible households, the caregivers and their husbands preferred the Lead Mothers due to their knowledge of households in the villages and their regular contact with the caregivers. On the other

hand, community leaders felt they should be the custodians of the feeding bowls, issuing them to Lead Mothers for distribution as needed. However, as a motivation for pregnant women to attend antenatal care (ANC), deliver at health facilities and present their children at the child welfare clinics (CWC) for immunizations, a section of the participants especially the facility based health care workers felt that they should be mandated to distribute the feeding toolkit at the health facilities. The ANC and CWC clinics would then be the main points of distribution at the health facilities.

4.8.1 Cost of feeding toolkit

Due to the high levels of poverty in the district, all participants preferred provision of feeding toolkit at no cost to the beneficiaries. While it makes sense to attach a cost to the feeding toolkit considering the cost of production, healthcare worker felt it may inhibit caregivers from accessing it hence affecting the intended outcome. A subsidized cost of between 50 and 150 MK was preferred if caregivers were to pay for the feeding bowl.

Chapter 5: Discussions

5.1 Summary of study

This formative research aimed to explore complementary child feeding practices in Mchinji district and assess the acceptability of the child feeding toolkit in facilitating improved practices. Findings from this study indicate high knowledge levels regarding most aspects of IYCF among participants including knowledge on early initiation of breastfeeding, exclusive breastfeeding, the appropriate age to introduce complementary feeding, and the six food groups required for a child's growth and development. However, most participants were uncertain of the recommended amount, consistency and frequency of child feeding and how this changed with child's age. Further, this study found that while there were some differing views on the design of the bowl, the feeding toolkit was overwhelmingly accepted with appropriate recommendations made for changes on the counseling card.

5.2 Discussion of findings.

The results of this study revealed that caregivers are knowledgeable about various aspects of IYCF, having obtained this information from multiple sources including the health facility, Lead Mothers, community health promoters and grandmothers. Consistent with this finding, are results from a formative research on complementary child feeding conducted in Zambia (PATH, 2010). Similarly, community health workers and health facilities were reported as the main sources of information on child feeding from a study conducted in Ethiopia (Amanuel Berihu, 2013). However, findings from a study in China, differs from those in the Malawi, Zambia and Ethiopia. In China information on child feeding was obtained from family members, neighbors, and friends (Wu et al., 2014). It can be deduced from these findings in Malawi that information sources on complementary child feeding are not fundamentally

different based on evidence from other African countries, and that community health workers remain an appropriate channel of message dissemination to the caregivers.

Caregiver nutrition knowledge is essential for improved child feeding practices. However, despite the high knowledge, this did not guarantee or translate into practice. Caregivers continue with their inappropriate child feeding practices. This can be attributed to traditional approaches in terms of care, attitude and general practice resulting from sustained negative caregiver feeding practices and cultural beliefs. This finding may further be explained by the low education levels among caregivers and the high proportion of food insufficient households in Malawi characterized by extreme poverty (MALAWI, 2015; World Bank, 2015). Additionally, lack of appropriate feeding devices to guide caregivers on amounts, frequency could be a contributing factor.

Diversifying a child's food is an important practice in child feeding as it reflects quality of the diet. Hence increasing food and food group variety ensures adequate intake of essential nutrients required to promote good health. For instance, a study conducted in Cambodia found that animal source foods contain vitamin A, B-12, calcium, and iron which protect against illnesses and therefore can reduce stunting (Darapheak, Takano, Kizuki, Nakamura, & Seino, 2013). Insufficient consumption of animal source foods and vegetables suggests a lack of some essential nutrients required for proper growth and development. Findings from this study reveal a lack of diversity in children's diet. Sustained negative caregiver feeding practices inhibit provision of meat and vegetables to children before a certain age. Household poverty limits the ability of caregivers to provide diversified diets to the children. Findings from this study are comparable to the Malawi DHS report which indicates that a child's diet comprises mainly grains (Macro., 2011). Similarly, findings from a study conducted to assess dietary diversity among children 6-23 months of age in Ethiopia revealed that 80 percent of a child's diet comprised grains, roots and tubers (Beyene, Worku, & Wassie, 2015). With insufficient funds to purchase animal source foods such as meat and eggs,

research has shown that such poor households may prefer to sell eggs, milk and vegetables instead of feeding them to their children (Monterrosa et al., 2012; Paul et al., 2011). However, evidence from a study conducted in Indonesia on household expenditure indicated that households that spent more on animal source foods had a lower prevalence of stunting than those spending more on grains (Sari et al., 2010).

Appropriate meal frequency is an important predictor of child nutrition. For instance a case control study in Nepal reported that children who were fed less than four times per day were 3.6 times more likely to be malnourished than those fed four times (Paudel et al., 2012). Findings from this study indicate some confusion on how often children should be fed according to their age which may be a main driver of inappropriate practice. This finding is comparable to that of a study assessing IYCF practices in India where the frequency of feeding among 57 percent of the children was reported to be low (Sinhababu et al., 2010)

The energy a child gets is reflected in the amount and consistency of food it consumes. While energy needs vary with age, the actual amounts given depend on energy density of the food.Findings suggest that children in Mchinji district may not be receiving enough energy required for growth and development. This is likely due to household food insufficiency due to poverty, cultural beliefs restricting intake of thick food, household labour distribution and time for the caregiver to feed the child, household power dynamics and a lack of tools to help caregivers measure the food or guide them.

Findings also reveal the need to create awareness on good decisions making capability on the recommended practices among caregivers. The “what”, “when”, and “how” a child is fed is influenced by husbands and grandmothers due to their perceived power in the household. These household power dynamics impact child feeding practices. Reports from studies conducted in other countries are comparable to this finding. For example, results obtained from a study in Ethiopia confirm the influential

role of grandmothers in child nutrition (Aubel, 2012) while findings from Guatemala reveal inappropriate child feeding practices due to household power dynamics which deny caregivers the autonomy and decision making regarding nutritional choices (K. Brown et al., 2016). However, other studies have shown that if women are given autonomy, there is likely to be improvement in child health and nutrition (Brunson et al., 2009; Doan & Bisharat, 1990). In this context, the impact of nutrition education on caregiver adoption of recommended complementary feeding practices may not be realized without addressing household power dynamics. These findings point to the potential need to promote women's empowerment in these communities to maximize impacts of nutrition initiatives. However, the role of fathers in behavior change interventions should not be underestimated. Studies have shown that fathers decision making role in a household can impact behavior change outcomes. For example in a study in an integrated agriculture and nutrition intervention in Kenya, the initial low uptake was linked non-involvement of men (Cole et al., 2016). Therefore gender integration in interventions focusing on improving child feeding practices is important to help them understand for instance the importance of animal source foods in a child's diet (Abubakar, Holding, Mwangome, & Maitland, 2011)

This study also found that while there were some differing views on the design of the bowl, the feeding toolkit was overwhelmingly accepted. The counseling card was generally accepted with recommendations for changes to make it more appropriate in the local context. The overall acceptability and feasibility findings can be explained by the easy to follow illustrations on the counseling card and the demarcations on the feeding bowl indicating amounts and frequency of child feeding at different ages. These results are comparable with those found in from a similar study assessing the acceptability of the feeding toolkit in Kenya and India using a trials of improved practices (TIPS) approach. The demarcations on the feeding bowl, the slotted spoon, and the counseling card cued mothers on the volume, consistency

and frequency child feeding (Kram et al., 2015; Collison et al., 2015). The results demonstrate a notable potential for the feeding toolkit to be adopted and utilized in Mchinji district.

These findings underscore the fact that human behavior is complex. Knowledge may not be a guarantee or translate into practice. Behavior change interventions that aim to reduce stunting through improvement of caregiver feeding practices should identify parameters that can elicit change from current practice where children are fed 2-3 times per day regardless of age on thin porridges and unspecified amounts of food. The feeding toolkit comprised of a feeding bowl, slotted spoon and illustrative counseling card offers a promising solution and can contribute to reducing stunting if other contextual factors are addressed.

Chapter 6: Conclusion, Public Health Implications and Recommendations

6.1 Conclusion

Conclusive from this formative assessment is the inappropriate and inadequate feeding observed in infants and young children in Mchinji district, and the potential of caregivers to utilize the feeding toolkit due to its perceived benefits. While the current child feeding practices in the district are detrimental to child growth and development, two concerns remain to be addressed; the improvement of child feeding and the development of sustainable and cost-effective complementary child feeding interventions.

Modification of behaviour change interventions focusing on caregivers and child feeding is therefore imperative. Augmenting the interventions with the feeding toolkit may profer an opportunity to improve child feeding practices. Therefore the feeding toolkit deserves consideration as it may be consequential in averting the current stunting problem and contribute to improved child growth and development in Malawi. This qualitative research provides baseline information that can be used witth other innovative approaches.

Recommendations.

The following recommendations should be considered for implementation of the feeding bowl study and future research

Programmatic recommendations

1. Given the short pilot period for testing the effectiveness of the feeding toolkit in reducing stunting among children under 2 years, a community entry processes could be undertaken to explain the intervention to community representatives and households selected for participation. Emphasis should be placed on training and supporting caregivers on the use of the feeding toolkit

2. A crucial part of this intervention lies in strengthening the capacity of the implementers and beneficiaries to adopt the toolkit. Thus developing a training guide on the feeding toolkit to be used by program staff , health promoters and Lead Mothers is essential.

3. Effective monitoring is critical to the success of this intervention. An operational monitoring and evaluation framework is needed to monitor the utilization of the feeding bowls by participating households.

4. The finding that IYCF practices are highly influenced by poverty and household food insecurity has implications for utilization of the feeding toolkit.. As such improving household food security through the existing Concern food security and nutrition programs might aid this while improving diet diversity.

5. Grand mothers/mothers-in-law and husbands influence on maternal and IYCF and their involvement in decision making is an important factor to consider. There is need to educate them alongside caregivers on the appropriate child feeding practices

6. Women empowerment activities should be included in the program. Caregivers should be supported to develop skills in agricultural production and marketing since Mchinji district is a food producing region.This may help improve food security and feeding patterns.

Research recommendations

1. A post intervention qualitative study should be conducted with caregivers in households participating in the effectiveness study to share their experiences with the feeding toolkit
2. Given that the design of the feeding bowl was based on energy density of porridge, an additional research is needed to ascertain the density of other foods common in Malawi so as to make the right recommendations.

3. Contamination of food during preparation and cleanliness of feeding bowl are dependant on availability of clean water and high standards of hygiene. It would therefore be important to monitor hygiene practices during food preparation and child feeding during alongside use of the bowl. .
4. Food security was identified as a critical influencer of child feeding practices and may potentially confound or modify the effect of the toolkit on child feeding practices. Thus the pilot study should monitor the food security status of the household during the implementation period and assess its influence on the uptake of the toolkit and subsequently on child feeding practices.

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Appendix A Focus group discussion guides in English and Chichewa

Tool 1: Focus Group Discussion Guide for Mothers with Young Children and Pregnant Women

Purpose:

i. To explore the knowledge, attitudes, practices and self-efficacy around complementary feeding, including perceptions on design of innovative bowl and spoon and adequacy of current complementary foods among pregnant women and mothers with young children's (less than 2 years).

Target Participants: 6-12 women → Pregnant and/or with children less than 2 years

Time: 1.5-2 hours

Materials Needed: FGD guide (3), bowls and spoons (4 sets), counseling cards (5), pens (5), 2 notebooks, large flip chart, large black markers(2), images of children at different stages of development, refreshments (milk, cookies, fruit) cash for (participants travel).

INTRODUCTION

Introduction Hello, my name is _____ and this is my colleague _____. We are working with Emory University in the United States on a study that is trying to identify effective ways to address malnutrition in this community, especially among children up to 2 years of age. You are being asked to participate in this study because you are either a *pregnant woman or a mother with a child less than 2 years of age, and have knowledge and experience that are* helpful to understand this topic. Participation is not required. If you choose to participate in this discussion then we expect it will take about 2 hours of your time. Do you have any questions or comments

Study Overview We are talking with you today to understand your opinions and experiences in nutrition as pregnant and breastfeeding women with children up to 2 years of age. We are also interested to understand barriers to good nutrition and your perceptions and opinions on new products designed to help families provide good nutrition to children up to 2 years of age.

Procedures: If you agree to participate in this discussion, you will be asked to share your opinions and experiences about feeding children and your opinions on new tools developed to help improve the nutrition of young children, pregnant and breastfeeding mothers. We will talk to you for about 2 hours. You may withdraw or refuse to answer any questions at any time. Know that if you participate, all information will be used without mentioning your name.

Risks and Discomforts Other than taking some of your time, we do not foresee any risks or discomforts to you as a result of talking with us today.

Benefits You may not get any direct benefits from this study. However, we hope that the findings from this study may benefit your community by providing us important information about ways to improve child feeding and the nutrition of mothers. Refreshments are provided for you during the discussion

Confidentiality We would like for you all to speak freely and share with us your thoughts and opinions, even if you disagree with each other. Everyone's ideas and opinions are important and will help us develop tools that may improve the nutrition of mothers and their children. To maintain each other's privacy we would like to ask that you not discuss what is said here outside of this group today. The information you provide will be kept strictly confidential and names will be removed from the data and reports.

[Interviewer: Address any questions, and explain that first you want to make sure they understand the study and what is being asked of the participant. Encourage the participant to ask questions as you proceed].

Do you agree to participate in this discussion?

Guidelines: Before we begin, I just want to go over some simple guidelines for today's discussion. I would like to point out that there is no right or wrong answers. We are interested in your views, so please feel comfortable to say what you honestly feel like. We want only one person to speak at a time, so that the voices are clearly heard. We are interested in what everyone has to say, so please try to keep the talk within the whole group instead of just talking to the people beside you. Finally, I'd like to remind you that I am just a moderator and not an expert on anything we discuss today, rather your views and opinions are most important to us! The session should take approximately 2 hours. Are there any questions before we begin?

Contact Information: If you have any questions about this study or your part in it, or if you have questions, concerns or complaints about the research then please contact:

Jennifer Weiss, Concern Worldwide, Plot 227 Area 3 Lilongwe Tel: +265999969928 (email: Jennifer.Weiss@concern.net)

You may also contact the Emory Institutional Review Board at 404-712-0720 or irb@emory.edu:

if you have questions about your rights as a research participant.

if you have questions, concerns or complaints about the research.

Intro/Warm up Questions

Let's all introduce ourselves by telling our names and a bit about ourselves for example about your children and family.

I. Maternal Nutrition:

Thank you for that introduction; I would first like to start by asking about the types of foods that are recommended for women when they are pregnant and after delivery.

What do people in this community say about how women should eat during pregnancy?

Probe →who says what?

Probe →reduce/increase food intake; taboos?

What do people say about how women should eat the first few months after delivery?

Probe → who says what?

Probe →reduce/increase food intake; special diet; taboos?

Of the people we've discussed that give advice to women, whose advice do women tend to follow?

Why?

Thank you: That was very informative discussion about how women should eat during pregnancy and breastfeeding.

II. Child Nutrition Activity: Feeding Timeline: *Have a large piece of paper with a line and images of infants at various stages of development spaced across the line – birth, lying, sitting, crawling, and standing - to represent the major feeding transitions: birth, 0-6 months, 6-9 months, 9-12 months, and 12-24 months.*

Using this timeline, I would like you to take me through how a typical infant is fed in your community from the time it is born until it reaches 2 years of age. I am interested in what foods and drinks are fed to the infant, including breast milk and when those foods and drinks are first introduced.

Let's start at birth…what are the first foods or drinks typically given to infants in this community after they are born? What else may be given?

Probe → When the infant is first put to the breast?

Probe →traditional foods/drinks given in the first weeks of life?

As the child grows older, what are the next foods or drinks that may be introduced to the infant?

Probe → When are these introduced on the time line (show timeline)

Probe →Why are these foods started at this time

Probe →how much is given and how often?

Probe →Role of season?

Probe →Thickness of food?

Note: If meat, dairy, fish, eggs, fruit, vegetables, and green leafy vegetables are not introduced, ask when these foods would be introduced.

Summarize what the mothers have said regarding when foods are introduced and the quantity, feeding frequency and consistency. Ask if you have summarized correctly of if they have anything to add.

Sources of Information on IYCF

The information you shared with us was very valuable regarding how children are fed in this community. Now, we would like to discuss from whom women in this community typically get information regarding how to feed their children?

Who do women in this community talk to about how to feed their very young children?

Probe: husbands, female relatives (sisters, aunts), neighbors, family members, mother in laws, lead mothers, nurses

Of these, whose advice are women most likely to follow? Why?

What type of advice do health workers give you about how to feed children 6-24 months of age? (Ages 6-9, 10-12 and 13-24)

Probe on frequency of feeds by age group

Probe on amount to feed

Probe on consistency of food

What type of advice do family members give you about how to feed children 6-24 months of age?

Probe on frequency of feeds by age group

Probe on amount to feed

Probe on consistency of food

What type of advice do lead mothers give you about how to feed children 6-24 months of age?

Probe on frequency of feeds by age group

Probe on amount to feed

Probe on consistency of food

CAPACITY TO ADHERE TO RECOMMENDATIONS

I would like to talk to you a bit about what health workers recommend about how to eat during pregnancy and breastfeeding and how to feed young children. I would like your opinions about these recommendations. Please remember we are interested in your thoughts and feelings on these -- there are no right or wrong answers.

If pregnant women in this community were recommended by the health worker to take an extra portion of food every day what challenges might she face in following this recommendation?

Probe → poverty; family traditions

Probe → fear of bad outcome during delivery

Probe → what would encourage her take an extra portion of food?

If a woman was recommended by the health worker to take an extra portion of food every day from the time she delivers what challenges might she face in following this recommendation?

Probe → poverty; family traditions

Probe → what would encourage her take an extra portion of food?

If women in your community were recommended to give only breast milk for the first 6 months of life what challenges would they face in following this recommendation?

Probe → family traditions; mothers' work;

Probe →if insufficient milk is raised, probe causes of insufficient milk

If women in your community were recommended to give foods beginning at 6 months of this thickness, what challenges would they have in following this recommendation?

Probe→ traditions, fears of choking;

If women in your community were recommended to feed several meals a day to their infants from 6-24 months of age, what challenges might they face?

If a mother in your community were encouraged to begin feeding semi-soft foods to her child when s/he reaches 6 months what foods what challenges would she have?

What challenges would a mother have if she were recommended to give different foods beginning when the child is 6-9 months for example fruits, vegetables and foods made from animals such as milk, meat, fish, eggs and yogurt?

Probe → Which foods are easier to provide to infants?

Probe → Which are more difficult?

Part B: Innovative design of bowl and spoon – *Thank you for that very informative discussion. We have learned a great deal about how women eat during pregnancy and when breastfeeding and how*

infants in this community are fed. I would now like to show you some tools that we would like to test with families to see if they can help mothers and their babies eat better in this and other communities in Malawi.

I would like to begin by showing this counseling card [pass out counseling card]. Please take a few minutes to look over the card and think about the message the card is trying to tell you.

What do you think this counseling card is about?

What specific messages is the counseling card trying to communicate? [take them though the various panels if needed]

What is easy to understand?

What is confusing?

What do you think about the images on the card?

Probe: the people? the symbols?

Probe: Are the symbols and images clear? Large enough? Do they tell the message clearly?

What do you think about the colors used?

Probe: Are they pleasing? Appropriate for the topic? Is the food in the bowl the right color?

What do you think about the foods shown on the card? Are there other foods we should include? Are there foods we should remove?

Show the bowl and soon; using the instructional card, describe how the bowl and spoon are to be used through pregnancy, breastfeeding and then from 6-24 months for the baby for ensuring optimal nutrition

Now that I've explained the card and the bowl and spoon, what changes would you recommend to the card to make it easier for families in this community to understand?

I would now like to ask you some questions specifically about the bowl and spoon. Please have a look at an example of the bowl and spoon [pass it around and let people look and feel it]

How helpful do you think a bowl with measurement marks would be in this community to help women and their infants have good nutrition?

How helpful do you think the spoon would be to help in ensuring the food is thick enough?

Can you tell me what you think about the appearance of the bowl and spoon

Probe: size, color, and shape?

Probe: symbols – are they clear? Are they acceptable?

What changes would you recommend to the bowl and spoon so they are more acceptable?

What challenges do you think women and children would have if they were to use the bowls and spoons while pregnant and breastfeeding and for feeding their children 6-24 months?

Probe: What would mother in laws and other family members think about using the bowl and spoon?

As explained before, this bowl can be used by mothers during pregnancy and lactation and then can be used for children once they start complementary feeding. How do you think other mothers of this community would feel about using the bowl and spoon

For themselves

For their children

Who in this community might be opposed to using this bowl and spoon to feed mothers and children?

Probe why

Do you have any recommendations about how this bowl and spoon could be distributed in the community?

Probe delivery: Should it be used as a FLW tool only? Would it be provided to families only? Or both? Where should it be distributed? Who would distribute it?

Probe costs: Should it be given for free? At a subsidized rate?

We have covered a lot of important and useful topics today thanks to all your input. I just wanted to wrap-up by summarizing what the biggest challenges for mothers with regards to complementary feeding are in the community and the opportunity for more education.

Anything else you want to discuss that we haven't been able to cover so far with regards to this discussion?

Thank you for your valuable time

Tool 2: FGD guide for Community leaders and Husband groups

Purpose:

i. To determine knowledge and attitudes towards complementary feeding and nutrition issues in their community and how they perceive their roles to address these issues
ii. To identify current complementary feeding practices in their community
iii. To understand their knowledge and perceptions regarding innovative bowl and spoon
iv. To identify how they perceive messages are transferred in the community

Target Participants: Groups of Mother-in-Laws, Community leaders and Husbands (adapt tool as needed for target participants)

Time: 1-1.5 hours

Materials Needed: FGD guide (3), bowls and spoons (4 sets), counseling cards (5), pens (5), 2 notebooks, large flip chart, large black markers(2), images for activity (community members; pregnant woman; sitting child, lying down, and standing), refreshments (milk, cookies, fruit) cash for (participants travel).

INTRODUCTION

Introduction Hello, my name is _____ and this is my colleague _____. We are working with Emory University in the United States on a study that is trying to identify effective ways to address malnutrition in this community, especially among pregnant and breastfeeding mothers and children up to 2 years of age. You are being asked to participate in this study because as a community leader *we believe you have knowledge and experience that are* helpful to understand this topic. Participation is not required. If you choose to participate in this discussion then we expect it will take about 2 hours of your time. Do you have any questions or comments*? [Interviewer: Address any questions, and explain that first you want to make sure they understand the study and what is being asked of the participant. Encourage the participant to ask questions as you proceed]*. Do you agree to participate in this discussion?

_____

Study Overview We are talking with you today to understand your opinions and experiences in nutrition of pregnant and breastfeeding women with children up to 2 years of age. We are also interested to understand barriers to good nutrition in your community and your perceptions and opinions on a new products designed to help pregnant women, mothers and children up to 2 years of age have good nutrition.

Procedures: If you agree to participate in this discussion, you will be asked to share your opinions and experiences about feeding children and your opinions on new tools developed to help improve the nutrition of young children , pregnant and breastfeeding mothers. We will talk to you for about 2 hours.

You may withdraw or refuse to answer any questions at any time. Know that if you participate, all information will be used without mentioning your name.

Risks and Discomforts Other than taking some of your time, we do not foresee any risks or discomforts to you as a result of talking with us today.

Benefits You may not get any direct benefits from this study. However, we hope that the findings from this study may benefit your community by providing us important information about ways to improve child feeding and the nutrition of mothers. Refreshments are provided for you during the discussion

Confidentiality We would like for you all to speak freely and share with us your thoughts and opinions, even if you disagree with each other. Everyone's ideas and opinions are important and will help us develop tools that may improve the nutrition of mothers and their children. To maintain each other's privacy we would like to ask that you not discuss what is said here outside of this group today. The information you provide will be kept strictly confidential and names will be removed from the data and reports.

Guidelines: Before we begin, I just want to go over some simple guidelines for today's discussion. I would like to point out that there is no right or wrong answers. We are interested in your views, so please feel comfortable to say what you honestly feel like. We want only one person to speak at a time, so that the voices are clearly heard. We are interested in what everyone has to say, so please try to keep the talk within the whole group instead of just talking to the people beside you. Finally, I'd like to remind you that I am just a moderator and not an expert on anything we discuss today, rather your views and opinions are most important to us! The session should take approximately 2 hours. Are there any questions before we begin?

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Intro/Warm Up Questions

Let's all introduce ourselves by telling our names and a bit about ourselves for example about your children and family.

PART A: Nutrition Advice

Facilitator Instructions: Prepare drawings of advice givers: woman of reproductive age, father, mother-in law, midwife, grandfather, frontline health worker / nurse; and advice receivers – pregnant mother, breastfeeding child, child sitting, crawling, standing with assistance.

Script: Thank you for that round of introductions! As we mentioned we are interested in learning about the diets and eating habits of pregnant and breastfeeding women and young children in this community. We are especially interested in the different types of advice mothers receive and the challenges they face in eating well.

Thanks -- I would like for us to do an exercise. [lay out images of advice givers]. Women may receive advice from many different people in this community about diet and nutrition. I would like to give you some scenarios and you tell me the kind of advice you and others might give. [pass out stones]. I will then ask you to tell me who in the community women are more likely to go to for advice. Ready. Ok we'll do one for practice.

Situation 1 [Show pregnant woman] → Ruth shown here, is pregnant for the first time and is confused about how she should eat during pregnancy. Like all women she wants to have an uncomplicated delivery and a healthy baby.

a) what advice would you give Ruth about how she should eat during pregnancy? [probe foods to avoid, foods to take more of, eating less than normal or more than normal]

b) of the different people we have represented here [indicate advice givers], who do you think Ruth is most likely to talk to about her concerns? place a stone on the person you think she is most likely to talk to– in case you can't decide between two people you can place one stone on one person and one stone on the other person?

c) Why did you select the people you did?

d) What advice do you think they would give on this topic?

e) In your opinion do these people have the most experience / knowledge about how to eat during pregnancy? If yes then go to next scenario; if no then ask them to identify using their stones who they think has the most experience / knowledge and why women do not go to that person for advice.

Situation 2 [Show image of breastfeeding mother]: Rose has a 1 month old baby boy. Rose is concerned that she does not have enough milk in her breasts. She is seeking advice about how to make sure she has enough breastmilk for her baby.

a) what advice would you give Rose about what she should do? [probe foods to avoid, foods to take more of, supplementing baby]

b) of the different people we have represented here [indicate advice givers], who do you think Ruth is most likely to talk to about her concerns? place a stone on the person you think she is most likely to talk to– in case you can't decide between two people you can place one stone on one person and one stone on the other person?

c) Why did you select the people you did?

d) What advice do you think they would give on this topic?

e) In your opinion do these people have the most experience / knowledge about how to eat during pregnancy? If yes then go to next scenario; if no then ask them to identify using their stones who they think has the most experience / knowledge and why women do not go to that person for advice.

Situation 3 [show image of sitting infant]: Truphena has a 6 month old baby girl. She remembers hearing at a health talk at the clinic that breastmilk is not enough after 6 months and that she should begin feeding semi-solid foods. She is afraid her baby is too young for semi-solid foods and might choke.

a) what advice would you give Rose about what she should do? [probe foods to avoid, foods to take more of, supplementing baby]

b) of the different people we have represented here [indicate advice givers], who do you think Ruth is most likely to talk to about her concerns? place a stone on the person you think she is most likely to talk to– in case you can't decide between two people you can place one stone on one person and one stone on the other person?

c) Why did you select the people you did?

d) What advice do you think they would give on this topic?

e) In your opinion do these people have the most experience / knowledge about how to eat during pregnancy? If yes then go to next scenario; if no then ask them to identify using their stones who they think has the most experience / knowledge and why women do not go to that person for advice.

Situation 4 [show image of crawling baby]: Helen has a 9 month old baby girl. She has seen her sister's baby struggle with diarrhea and weight loss and wants to make sure she feeds her baby well so it grows well and does not get sick.

a) what advice would you give Helen about how to feed her baby [probe frequency, amount, thickness and diversity of food -- foods to avoid, special foods for children; hygiene]

b) of the different people we have represented here [indicate advice givers], who do you think Ruth is most likely to talk to about her concerns? place a stone on the person you think she is most likely to talk to– in case you can't decide between two people you can place one stone on one person and one stone on the other person?

c) Why did you select the people you did?

d) What advice do you think they would give on this topic?

e) In your opinion do these people have the most experience / knowledge about how to eat during pregnancy? If yes then go to next scenario; if no then ask them to identify using their stones who they think has the most experience / knowledge and why women do not go to that person for advice.

→ If meats, dairy, fish, eggs, fruits, vegetables and green-leafy vegetables are not mentioned during the discussion for situation 3 or 4, then probe on when these foods are introduced?

Part B: Innovative design of bowl and spoon – *Thank you for that very informative discussion. We have learned a great deal about how women eat during pregnancy and when breastfeeding and how infants in this community are fed. I would now like to show you some tools that we would like to test with families to see if they help mothers and their babies eat better in this and other communities in Malawi.*

I would like to begin by showing this counseling card [pass out counseling card]. Please take a few minutes to look over the card and think about the message the card is trying to tell you.

What do you think this counseling card is about?

What specific messages is the counseling card trying to communicate? [take them though the various panels if needed]

What is easy to understand?

1. What is confusing?

2. What do you think about the images on the card?
    a. Probe: the people? the symbols?

   b. Probe: Are the symbols and images clear? Large enough? Do they tell the message clearly?

3. What do you think about the colors used?
   a. Probe: Are they pleasing? Appropriate for the topic? Is the food in the bowl the right color?

4. What do you think about the foods shown on the card? Are there other foods we should include? Are there foods we should remove?

Show the bowl and soon; using the instructional card, describe how the bowl and spoon are to be used through pregnancy, breastfeeding and then from 6-24 months for the baby for ensuring optimal nutrition

5. Now that I've explained the card and the bowl and spoon, what changes would you recommend to the card to make it easier for families in this community to understand?

I would now like to ask you some questions specifically about the bowl and spoon. Please have a look at an example of the bowl and spoon [pass it around and let people look and feel it]

6. How helpful do you think a bowl with measurement marks would be in this community to help women and their infants have good nutrition?
   i. For woman who is pregnant to help her and her family ensure that she receives an extra portion of food a day for the health of the baby?
   ii. What about when a mother is breastfeeding?
   iii. For a family to know when to begin giving semi-solid foods to the baby?
   iv. For a family to know how much and how often to feed children 6-24 months of age?

7. How helpful do you think the spoon would be to help in ensuring the food is thick enough?

8. Can you tell me what you think about the appearance of the bowl and spoon?
   a. Probe: size, color, and shape?
      i. Probe: symbols – are they clear? Are they acceptable?
   b. What changes would you recommend to the bowl and spoon so they are more acceptable?

9. What challenges do you think women and children would have if they were to use the bowls and spoons while pregnant and breastfeeding and for feeding their children 6-24 months?
   a. Probe: What would other MILs and other family members think about using the bowl and spoon?

10. As explained before, this bowl can be used by mothers during pregnancy and lactation and then can be used for children once they start complementary feeding. How do you think mothers of this community would feel about using the bowl and spoon
    a. For themselves
    b. For their children

11. Who in this community who might be opposed to using this bowl and spoon to feed mothers and children?
    a. Probe why

12. Do you have any recommendations about how this bowl and spoon should be distributed in the community?
    a. **Probe on delivery and cost**: Should it be used as FLW tool only? Should it be provided to families only? Or both? Should it be given for free? At a subsidized rate? Where should it be distributed? Who would distribute it?

We have covered a lot of important and useful topics today thanks to all your input. I just wanted to wrap-up by summarizing what the biggest challenges for mothers with regards to complementary feeding are in the community and the opportunity for more education.

Anything else you want to discuss that we haven't been able to cover so far with regards to this discussion?

Thank you for your valuable time!

Tool 3: FGD Guide for Lead Mothers / Care Group Facilitators

Purpose:

i. To understand the lead mothers' knowledge of and attitudes towards IYCF nutrition issues in their community and how they perceive their roles to address these issues
ii. To identify their current complementary feeding counseling practices/attitudes, and self-efficacy towards IYCF counseling
iii. To identify opportunities for collaboration among FLWs, innovative approaches to address IYCF in the community and additional resources needed by the FLWS to effectively address the IYCF barriers

Target Participants: lead mothers and the Care group facilitators

Time: 1.5-2 hours

Martials Needed: FGD guide (3), bowls and spoons (4 sets), counseling cards (5), pens (5), 2 notebooks, large flip chart, large black markers(2), images of children at different stages of development, refreshments (milk, cookies, fruit) cash for (participants travel).

INTRODUCTION

Introduction Hello, my name is _____ and this is my colleague _____. We are working with Emory University in the United States on a study that is trying to identify effective ways to address malnutrition in this community, especially among pregnant and breastfeeding mothers and children up to 2 years of age. You are being asked to participate in this study because of your interaction with pregnant *women or mothers with a children less than 2 years of age, and have knowledge and experience that are* helpful to understand this topic. Participation is not required. If you choose to participate in this discussion then we expect it will take about 2 hours of your time. Do you have any questions or comments? [Interviewer: Address any questions, and explain that first you want to make sure they understand the study and what is being asked of the participant. Encourage the participant to ask questions as you proceed]. Do you agree to participate in this discussion?

Study Overview We are talking with you today to understand your opinions and experiences in nutrition as a lead mother. We are also interested to understand barriers to good nutrition among and your perceptions and opinions on new products designed to help pregnant women, mothers and children up to 2 years of age have good nutrition.

Procedures If you agree to participate in this discussion, you will be asked to share your opinions and experiences about feeding children and your opinions on new tools developed to help improve the nutrition of young children , pregnant and breastfeeding mothers. We will talk to you for about 2 hours.

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INTRO/WARM UP

Let's start with a quick round of introductions, where we all state one thing we like about our work. I'll go first and then you can take turns one by one to let us know what you like.

PART I: Infant and Young Child Feeding

Exercise A: Complementary feeding practices and ranking exercise [Timeline activity using images of infants at various stages of development – birth, lying, sitting, crawling, standing; stones for ranking most challenging recommendations]

Great! Now I would like for us to talk about the recommendations made by frontline workers in this community for infant feeding. We will use a timeline to help us with this discussion. Using this timeline I would like for you to take me through the recommendations that a typical front line worker gives to a family about how an infant should be fed in this community from the time it is born up until it reaches 2 years of age. I am interested in what foods and drinks are commonly recommended for the infant including breastmilk, when those foods and drinks are first introduced and how much is recommended. Are there any questions?

Let's start at birth… what are the first foods or drinks you would recommend for infants after they are born? What else might you recommend?

IF breastmilk is not mentioned, then probe when they usually recommend an infant be first put to the breast?

Are any additional foods or drinks that they recommend in the first week of life?

As the child grows older, what are the next foods or drinks recommended to the infant?

Probe on what specific foods are recommended first and when these are started -- indicate these on the timeline

What is the consistency of these foods?

Probe why these foods are recommended at this time?

Follow up if not specified – when do frontline workers recommend women begin feeding semi-solid foods?

How much semi-solid food is usually recommended for children that are 6-12 months of age?

Note: If meats, dairy, fish, eggs, fruits, vegetables or green-leafy vegetables have not been recommended, then probe on when these foods should be introduced.

Using the timeline, summarize what the front line workers have said regarding when foods are introduced and the quantity, feeding frequency and consistency. Ask if you have summarized correctly of if they have anything to add.

Give each participant 2 stones:

1. Now I would like for you to each take two stones. I want you to place one stone on the recommendation you think is most challenging for mothers and families and families to follow. If there are two recommendations that you feel are equally challenging then you can use your second stone for the other recommendation. *After the FLW have placed their stones, summarize the ones that appear to be most challenging in terms of having the most stones. For each one ask why this recommendation is challenging to families – probe on families' knowledge, access to food, household dynamics, etc.*

2. Now I would like for you to each take two stones. I want you to place one stone on the recommendation you think is easiest for mothers and families and families to follow. If there are two recommendations that you feel are equally easy then you can use your second stone for the other recommendation. *After the FLW have placed their stones, summarize the ones that appear to be easiest in terms of having the most stones. For each one ask why this recommendation is easy for families – probe on families' knowledge, access to food, household dynamics, etc.*

3. What makes some recommendations easier for families to follow than others?

Part II Nutrition in Pregnancy and Lactation

That was very useful. I would now like to talk about recommendations that are typically made for women when they are pregnant or breastfeeding.

Nutrition in Pregnancy:

How do women in this community typically eat when they are pregnant? [probe -- more, less, the same; food restrictions]

What counseling do front line workers in this community usually give women about how they should eat during pregnancy?

Who else in the home or community advises women on how they should eat during pregnancy? What advise do they give pregnant women?

In your opinion, whose advice do women typically follow? Why?

In your opinion what nutrition recommendations are hardest for pregnant to follow? Why

Nutrition while Breastfeeding:

How do women in this community typically eat when they are breastfeeding? [probe -- more, less, the same; food restrictions]

What counseling do front line workers in this community usually give women about how they should eat while breastfeeding?

Who else in the home or community advises women on how they should eat while breastfeeding? What advise do they give women?

In your opinion, whose advice do women typically follow? Why?

In your opinion what nutrition recommendations are hardest for breastfeeding women to follow? Why

Part B: Innovative design of bowl and spoon – *Thank you for that very informative discussion. We have learned a great deal about how women eat during pregnancy and when breastfeeding and how infants in this community are fed. I would now like to show you some tools that we would like to test with families to see if they help mothers and their babies eat better in this and other communities in Malawi.*

I would like to begin by showing this counseling card [pass out counseling card]. Please take a few minutes to look over the card and think about the message the card is trying to tell you.

What do you think this counseling card is about?

What specific messages is the counseling card trying to communicate? [take them though the various panels if needed]

What is easy to understand?

What is confusing?

What do you think about the images on the card?

Probe: the people? the symbols?

Probe: Are the symbols and images clear? Large enough? Do they tell the message clearly?

What do you think about the colors used?

Probe: Are they pleasing? Appropriate for the topic? Is the food in the bowl the right color?

What do you think about the foods shown on the card? Are there other foods we should include? Are there foods we should remove?

Show the bowl and soon; using the instructional card, describe how the bowl and spoon are to be used through pregnancy, breastfeeding and then from 6-24 months for the baby for ensuring optimal nutrition

Now that I've explained the card and the bowl and spoon, what changes would you recommend to the card to make it easier for families in this community to understand?

I would now like to ask you some questions specifically about the bowl and spoon. Please have a look at an example of the bowl and spoon [pass it around and let people look and feel it]

How helpful do you think a bowl with measurement marks would be in this community to help women and their infants have good nutrition?

For woman who is pregnant to help her and her family ensure that she receives an extra portion of food a day for the health of the baby?

What about when a mother is breastfeeding?

For a family to know when to begin giving semi-solid foods to the baby?

For a family to know how much and how often to feed children 6-24 months of age?

How helpful do you think the spoon would be to help in ensuring the food is thick enough?

Can you tell me what you think about the appearance of the bowl and spoon

Probe: size, color, and shape?

Probe: symbols – are they clear? Are they acceptable?

What changes would you recommend to the bowl and spoon so they are more acceptable?

What challenges do you think women and children would have if they were to use the bowls and spoons while pregnant and breastfeeding and for feeding their children 6-24 months?

Probe: What would other MILs and other family members think about using the bowl and spoon?

As explained before, this bowl can be used by mothers during pregnancy and lactation and then can be used for children once they start complementary feeding. How do you think mothers of this community would feel about using the bowl and spoon

For themselves

For their children

Who in this community who might be opposed to using this bowl and spoon to feed mothers and children?

Probe why

What recommendations do you have about how this bowl and spoon should be distributed in the community?

Probe on delivery and cost: Should it be used as FLW tool only? Should it be provided to families only? Or both? Should it be given for free? At a subsidized rate? Where should it be distributed? Who would distribute it?

CONCLUDING QUESTIONS

We have covered a lot of important and useful topics today thanks to all your input. I just wanted to wrap-up by summarizing what the biggest challenges for mothers with regards to complementary feeding are in the community and the opportunity for more education.

Anything else you want to discuss that we haven't been able to cover so far with regards to this discussion?

This is all very useful and all your input is greatly appreciated. Thank you for your time and we hope to work together to effectively address malnutrition among infants and young children in this community.

Tool 4: FGD Guide for Health care workers

Purpose:

To identify perceived challenges faced by families in ensuring optimal maternal and child nutrition

To gain initial understanding of utility and acceptability of bowl and spoon as a tool to improve maternal and child nutrition.

Target Participants: Program coordinators, Ministry of Health officials

INTRODUCTIONINTRODUCTION

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Risks and Discomforts Other than taking some of your time, we do not foresee any risks or discomforts to you as a result of talking with us today.

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I. State of Maternal and Child Nutrition

What nutritional challenges do you find to be most common for women during pregnancy and breastfeeding? [Probe on sufficient intakes in pregnancy and lactation, eating down – are low birth weight / preterm delivery common]?

What do you feel are the causes of maternal malnutrition in this community?

What nutritional concerns do you find to be most common for children under 2 years in this community?

What do you feel are the causes of child malnutrition in this community?

II. Current Programming Activities

What activities are you / your organization engaged in on child nutrition? *If none, then skip to Q X*

How do these programs / activities engage with the communities?

What program successes can you share with me in terms of improvements in child feeding / nutrition?

What challenges have you faced in terms of program implementation? In terms of uptake of activities by families / households?

What effect do you think these program / activities will ultimately have on child nutrition? How sustainable do you think these effects will be?

What activities are you / your organization engaged in on maternal nutrition? If none, skip to… Part B

How do these programs / activities engage with the communities?

What successes can you share with me?

What challenges have you faced in terms of implementation? In terms of uptake of activities by families / households?

What effect do you think your activities will have on women's nutrition? How sustainable do you feel these changes will be?

Summarize briefly any activities / program components mentioned that are related to counseling of mothers / families about nutrition during pregnancy / lactation / infancy. If no counseling activities were mentioned then ask specifically about counseling activities.

Part B: Innovative design of bowl and spoon – *Thank you for that information. I would now like to show you some tools that we think will help mothers and children eat better in this and other communities in [local setting name]*.

Show the bowl and spoon and instructional materials; describe how they are to be used through pregnancy, breastfeeding and then from 6-24 months for the baby.

How helpful do you think a bowl and spoon like this would be for a family to ensure optimal nutrition of women during pregnancy and breastfeeding and optimal complementary feeding of their infants?

What challenges do you foresee for families using these in the home?

How helpful would this bowl and spoon be for front line workers as counseling tools to demonstrate how to eat during pregnancy and breastfeeding and how to complementary feed their infants?

What challenges do you foresee with FLW using these as counseling tools?

Which do you think would be more effective – providing these directly to mothers to use in the home or providing them to FLW to use as job aids?

Which would be more sustainable?

What do you think communities would say about these bowls and spoons?

Can you tell me what you think about the bowls, spoons and instructional materials in terms of appearance / design? What recommendations do you have for changes?

Do you have any recommendations about the best delivery platform for these tools? PROBE: Should it be used as FLW tool only? Should it be provided to families only? Or both? Should it be given for free? At a subsidized rate? Where should it be distributed?

CONCLUDING QUESTIONS

We have covered a lot of important and useful topics today thanks to all your hard work with these activities. I just wanted to wrap-up by summarizing some of the main content that we discovered as a group.

Is there anything else that you want to share that we haven't talked about already?

This is all very useful and all your input is greatly appreciated. Thank you for your time and we hope to work together to effectively address malnutrition among infants and young children in this community!

FGD guides in Chichewa

Tool 1: Ndondomeko ya mafunso kwa azimayi oyembekedzera ndi amene ali ndi ana angoono. Focus Group Discussion Guide for Mothers with Young Children and Pregnant Women

Cholinga☺

Tikufufudza zimene anthu akudziwa, zizolowedzi ndi kuthekera kwawo ndi kaganizidwe ka anthu pa zakudya zowonjedzera kwa azimai oyembekezera ndi ana osapyola zaka ziwiri zakubadwa. Komanso tikufufudza mmene mukuonera ndondomeko zatsopano zachida chodyetsera ndi spoon komanso ngati mlingo wachakudya chomwe akulandira panopa ndi chokwanira.

pa nkhani za zakudya chowonjezera kuphatikiziraponso kaganizidwe pa ndondomeko za tsopano za chida chodyetsera ndi supuni mokwanila pa kadyetsedwe ka tsopano ka

Gulu lofikilidwa: azimai 6-12 → apakati kapena azimai aana osapyola zaka ziwiri zakubadwa.

Nthawi: 1.5-2 hours

Zipangizo zoyenerera : mabuku a zokambilana pa gulu (3), chipangizo chodyetsera ndi supuni (zinayi), makhadi operekera uphungu (asanu), zolembera (zisanu),(Makope awiri) , Mapepala akuluakulu olemberapo ndi zolembera zake (Ziwiri), Zithunzi zowonetsa makulidwe aana nthawi zosiyana (Mkaka, bisiketi ndi zipatso) ndalama zoyendera za otenga nawo gawo .

Kupempha chiloledzo

Mawu oyamba

Zikomo, dzina langa ndine _____uyu ndi nzanga _____.

Tikugwira ndi a Emory University a ku America. Tikupanga kafukufuku yemwe akuyesa kupeza njira zoyenerera zothesera kunyentchera kumudzi kuno ,kwenikweni kwa ana omwe sanapyole zaka ziwiri zakubadwa. Mukufunsidwa kuti mutenge nawo gawo pa kafukufukuyi chifukwa ndinu oyembekezera kapena mai wa mwana/ana azaka zosapyola ziwiri, poyanganila kuti muli ndi nzeru komanso luso

zomwe zili zothandiza kuti timvetse cholinga cha kafukufukuyi.Kutenga nawo gawo nkosakakamidza. Mukalola kukhala nawo mu zokambiranazimenezi, ziwani kuti titenga ola ndi theka kapena awiri.

Zakafukufukuyi: Tikufuna tikambirane ndikumva maganizo anu ndi mmene mumadyetsera ana ang'noang'ono ochepera zaka ziwiri ndi amayi apakati komanso oyamwitsa. Tikufunanso timvetsetse zobvuta zomwe mukumanazo pakadyetsedwe ka ana komanso momwe mukuganizira pa ziwiya zina zatsopano zofuna kuthandizira kadyetsedwe ka ana osaposa zaka ziwiri.

Ndondomeko: Ngati mwavomeredza kutenga nawo gawo mu zokambiranazi mukufunsidwa kuti mupereka maganizo komanso luso lanu pa kadyetsedwe ka mwana komanso maganizo anu pa zipangizo za tsopano zomwe zakonzedwa kuti zithandize kupitisa patsogolo thanzi la ana, azimayi oyembekezera ndi oyamwitsa. Tikambilana nanu kwa ma ola awiri. Mutha kusiya kutenga nawo gawo pa zokalimbiranazi pa nthawi ina iliriyonse komanso mutha kusankha kusayankha nawo mafunso ena. . Dziwani kuti mukatenga nawo gawo zokambirana zonse zitachitike pano, sititenga maina anu.

Chioopsyedzo

Palibe choopsa china chilichonse pakutenga nawo mbali pa kafukufuku yu kupatula kuti mukhala nafe pano kwa kanthawi tikukambirana.

Ubwino : Simupeza ubwino wa pompopompo mu kafukufukuyi. Komabe tikuganizira kuti zotsatila za kafukufuku yi zizakhala ndi ubwino kwa anthu a kuno popereka uthenga ofunikira wa njira za pamwamba zodyetsera mwana ndi thanzi la mayi. Komanso mulandira Zozizilitsa kukhosi panthawi yomwe tikukambirana ndi ndalama yomwe mwayendera kwa amene mwachokera kutali.

Chinsinsi: Tikufuna kukambirana nanu momasuka ndipo mupereke maganizo anu kwa ife. Maganizo a wina aliyense ndi ofunikira chifukwa athandiza kukonza ndondomeko zomwe zithandize kupititsa patsogolo nthanzi labwino kwa amayi komanso ana awo. Kuti tisungirane chinsinsi cha wina ndi nzake, mukupemphedwa kutimusakambirane wina aliyense zomwe takambirana panozi. . Zonse zomwe takambirana pano zisungidwa mwachinsisni komanso maina anu sazatchulidwa pena pali ponse mu repoti..

Muli ndi funso lina lililonse kapena ndemanga?

Ofunsa : yankhani mafunso ena aliwonse ndipo mufotokoze kuti choyamba mukufuna kuti amvetse za kafukufukuyu ndi zomwe zikufunsidwa kwa otenga nawo gawo.

Alimbikitseni otenga nawo gawo kuti afunse mafunse . Mukuvomekeza kutenga nawo gawo mu zokambilanazi?

Contact Information: If you have any questions about this study or your part in it, or if you have questions, concerns or complaints about the research then please contact:

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if you have questions about your rights as a research participant.

if you have questions, concerns or complaints about the research.

Mndanda wa zochitika: Tisanayambe, ndafuna kuti mudziwe zochitika zathu kuti tipanga bwanji pa kukambiranaku. Ndafuna kuti ndifotokoze kuti palibe ansala yolondola kapena yolakwa. Tikufuna timve maganizo anu,ndiye mukhale omasuka kufutokoza moona mnene mukumvera. Munthu mmodzi ndi amene ali ololedwa kuyankhula panthawi pofuna kuti timve mawu aliyense. Tikufuna timve chili chonse chomwe ati anene munthu, ndiye tikupemphani kuti mulankhule kwa gulu lonse mmalo moyankhula ndi omwe akuyandikini basi. Pomalizira ndikumbutse kuti ine ndikungotsogolera zokambirana oasti ndine kadaulo wa zomwe tipanga lerozi. Zomwe mutiuze ndizime ziti ziti zithandize mukafuku ameneyu. Kukambirana kutenga pafupi maola awiri. Muli ndi funso?

Kudziwana

Aliyense adzitchule yekha dzina lake ndi zomwe timachita kwathuko kapena kubanja kwathu tili ndi ana angati.

Madyedwe a amayi apakati:

Zikomo kwambiri chifukwa chodziwana; ndiyamba ndikufunsa za zakudya zovomerezeka za mmayi nthawi imene ali woyembekezera komanso akabadwitsa.

Kodi anthu amanena kuti chiani kumudzi pa za mmene azimayi azidyera mnthawi yoti ndiwoyembekezera?

Fufuzani →iwowo akuti chiani? Nanga ena?

Fufuzani →Kuchepesa /kuwonjezera chakudya, nanga zikhulupiro?

Anthu amanena kuti chiani pa za mmene azimayi azidyera pakangotha miyezi yochepa akachila?

Fufuzani →iwowo akuti chiani ? Nanga ena?

Fufuzani →kuchepetsa/kuwonjezera zakudya;chakudya chapadera chopatsa thanzi; nanga zikhulupiro?

Pa anthu amene takambirana amene amapereka uphungu kwa azimai,ndi uphungu wandani womwe azimayi amautsatila?

Chifukwa chiani ?

Zikomo. Kukambiranaku taphunzirako mmene azimayi angadyere mu nthawi imene ali woyembekezera komanso akamayamwitsa.

II.Thanzi la mwana : Nthawi yodyetsera: *Tengani pepala lalikulu lomwe lili ndi mzere komanso chithunzi cha mwana choonetsa makulidwe mu nthawi zosiyanasiyana-kubadwa,kugona, kukwawa, kukhala, kuyimirira kasinthidwe ka madyetsedwe. Kubadwa mpaka miyezi isanu ndi umodzi, miyezi isanu ndi umodzi mpaka isanu ndi inayi, isanu ndi inayi mpaka khumi ndi iwiri khumi ndi iwiri mpaka makumiawiri ndi inayi.*

Pogwiritsa ntchito nthawi yomwe tapatsidwayi, ndikufuna kutimundiuze mmene mwana amadyetsedwera kumudzi kuchokera nthawi imene iye wabadwa mpaka kudzafika zaka ziwiri. Kweni kweni ndikufuna kudziwa kuti ndi zakudya ndi zakumwa ziti zomwe mumampatsa,kuphatikizirapo mkaka wa mmawere komanso zakudya ndi zakumwa zomwe zimaperekedwa koyambirira.

Tiyambe akabadwa …ndizakudya kapena zakumwa ziti mumapereka? China ndichiyani chimene mumampatsa?

Fufuzani → Mwana akayamba kuyamwa mkaka wa mmawere?

Fufuzani →Zakudya/ zakumwa zakumudzi zomwe zimaperekedwa kwa mwana mmilingu yoyambirira ya moyo wake?

Mwana akamakula, chakudya kapena chakumwa chomwe chimaperekedwa kwa mwanayo ndi chiani?

Fufuzani →Zakudya zimenezi zimaperekedwa muthawi it? *(show timeline of child growth)*

Fufuzani →Chifukwa chiani?

Fufuzani →Zimaperekedwa mochuka bwanji,Kangati ?

Fufuzani →Nyengo zake ziti?

Fufuzani →Kukhathamira kwa chakudya?

Chidziwitso : Ngati nyama,mkaka,nsomba,mazira,zipatso,masambandi masamba obiliwira sizikuyambitsidwa funsani kuti kodi zakudya zimenezi zimayambitsidwa nthawi iti?

Nenani mwachidule zomwe azimayi anena poyanganira nthawi imwene chakudya chimayambitsidwa,zochuluka bwanji, madyetsedwe. Funsani ngati mwanena zones, ngati pali pofuna kuwonjezera awonjezere.

Komwe timapeza maphunziro a za kadyetsedwe ka mwana

Zomwe mwagawana ndi ife ndizofunikira kwambiri za mmene mwana amadyetsedwera kumudzi. Tsopano tikufuna tikambirane kuti kodi azimayi amadziwa kuchokera kwa ndani za kadyetsedwe ka ana awo kumudzi.

Azimayi mmudzi muno amakambirana ndi ndani pa zakadyetsedwe ka ana awo?

Fufuzani : Amuna awo,mbale wa mkazi (chemwali ,azakhali), oyandikana nawo, anthu wena ambanjamo, a zaumoyo a kumudzi, anamwino, apongozi, lead mothers/mayi wachitsanzo/wotsogolera/.

Mwa amenewa, uphungu umene umatsatilidwa ndi wa ndani?.

Ndi uphungu wanji womwe azaumoyo amapereka okhudzana ndi kadyetsedwe ka mwana wa miyezi yoyambira isanu ndi umodzi kufika makumi awiri ndi inayi.

Fufuzani amamdyetsa kangati potengera ndi zaka za Mwana (6-9; 10-12; 13-24).

b. Fufuzani zochuluka bwanji?

C. Fufuzani zakudya zake zimakhala zolimba bwanji?

Ndi uphungu wotani womwe anthu a mbanja lanu amakupatsani pa za kadyetsedwe ka mwana wa miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi

Fufuzani amamdyetsa kangati potengera ndi zaka

Fufuzani Zochuluka bwanji

Fufuzani Zakudya zake zimakhala zolimba bwanji

Lead mother/mayi mkulu/mayi otsogolera/mayi wachitsanzo amakupatsani uphungu wanji pa kadyedwe ka ana a miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi.

Fufuzani amadyetsa kangati potengera ndi zaka

Fufuzani Zochuluka bwanji

Fufuzani Zakudya zake zotani

<u>Kuthekera kwa kugwiritsa ntchito mfundo zovomerezedwa</u>

Ndikufuna tikambirane pang'ono pazakudya zomwe azaumoyo amavomereza nthawi yomwe mai ali woyembekezera komanso akuyamwitsa ndinso kudyetsa mwana. Ndikufuna kumva maganizo anu pa mfundo zovomerezedwazi.Kumbukirani kuti tikungofuna kumvamaganizo anu.-Palibe mayankho olakwa kapena okhoza.

Kodi mzimayi woyembekezera kumudzi kuno atauzidwa ndi azaumoyo kuti adye chakudya choonjezera tsiku lililonse angakomane ndi zovuta zotani potsatila uphungu umenewu?

Fufuzani →umphawi,zochitika za pa banja

Fufuzani →mantha ndizotsatira zoyipa mthawi yoti achira

Fufuzani → Chingamulimbikitse ndichiani kuti adye chakudya chowonjezera

<u>Kodi azimayi akumudzi kuno atalandila uphungu oti azidya chakudya choonjezera tsikulililonse, angakumane ndimavuto otani potsatila ndondomekoyi?</u>

Fufuzani: umphawi, zochitika zapabanja

Fufuzani: chingamulimbikitse ndichiyani kuti adye chakudya choonjezela?

Kodi azimayi kumudzi kuno atalandila uphungu woti apereke mkaka wa mmawere wokha basi kwa mwana pa miyezi isanu ndi umodzi yoyambirira ya moyo wake angakumane ndi zovuta zotani?

Fufuzani → Zochitika za pa banja ,ntchito ya mai

Fufuzani →Ngati mkaka wapezeka wochepa, fufuzani vuto limene lapangitsa.

Kodi azimayi kumudzi kuno anatandira uphungu woti apereke chakudya pa miyezi isanu ndi umodzi cha makhathamiridwe wotere, angakumane ndi mavuto wotani?

Fufuzani → Zachikhalidwe, Mantha kuti mwana atsamwidwa.

Kodi azimayi atalandila uphungu woti adyetse ana awo a miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi zakudya mowirikiza pa tsiku, angakumane ndi mavuto anji.

Kodi azimayi kumudzi kwanu atalimbikitsidwa kuti ayambe kudyetsa mwana zakudya zofewako akafika miyezi isanu ndi umodzi, mwachitsanzo zipatso, angakumane ndi zovuta zotani?

Kodi ndimavuto ati omwe mayi angakumane nawo ngati atalandila uphungu woti apereke zokudya zosiyasiyana kwamwana akafika miyezi isanu ndi umodzi mpaka miyezi isanu ndiinayi, mwachitsanzo zipatso, masamba ndi chakudya chochokera ku nyama ngati mkaka, ,nyama,nsomba,mazira ndi yogati.

Fufuzani → ndi zakudya ziti zomwe zisali zovuta kupeza zoti ampatse mwana?

Fufuzani →Ndi ziti zomwe zili zovuta

Part B: Maganizo athu pa mbale ndi supuni zatsopanozodyetsera ana.

Zikomo chifukwa chodziwatsana kudzera mu zokambirana.Taphunzira kwambiri za mmene azimayi amadyera akakhala oyembekezera komanso akamayamwitsa ndi kudyetsa ana kumudzi kuno. Ndikuwonetsani zipangizo zomwe tikufuna kuti tiziyese kuti tione ngati zingathe kuthandiza azimayi ndi ana awo kudya bwino kumudzi kuno komanso kwina.

Ndikufuna ndiyambe ndikuwonetsa uphungu womwe uli pa khadi iyi (apatsireni makadi) Tengani mphindi zochepa kuwona khadi ndipo muganize uthenga womwe uli pakhadipo.

Kodi khadiyi ikukupatsani uthenga weni weni wotani? *[Atengeleni mtimagulu tosiyansiyana ngati nkofunikira.)*

Chosavuta kumvetsa ndi chiani?

Chimene musakumvetsa ndi chiyani?

Mukuganiza bwanji za zithunzi zili pa khadipo?

Fufuzani: Anthu ? Zizindikilo?

Fufuzani: Zizindikilozo ndi zithuzi zikuoneka bwino? Zazikulu bwino?Zikufotokoza uthenga bwino

Mukuganiza bwanji za mitundu/kalala yomwe yagwiritsidwa ntchitoyo?

Fufuzani: Zikusangalatsa? Zogwirizana ndi phunziro? Chakudya chili mchodyeracho chili ndi mtundu woyenera?

Mukuganiza bwanji za zakudya zomwe mukuona pa? Pali zakudya zina tiwonjezere? Pali zakudya zina tichotsepo?

Owonetsani mbaleyo ndi supumi; pogwiritsa ntchito khadi fotokozani mmene mbaleyo ndi supuni zigwirire ntchito kwa mayi oyembekezera, oyamwitsa komanso mwana wa miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi kuwonetsetsa kuti pakhale thanzi lenileni.

Tsopano ndafotokoza za khadi ndi mbale yodyela ndi supuni, mungafotokoze zomwe mukufuna titasintha pakhadi kuti zisakhale zovuta kuti anthu amvetse.

Ndikufunsani mafunso tsono kweni kweni a mbale yodyela ndi supuni. (Perekani mbale ndi supuni kwa anthu onse kuti awone)

Mukuganiza kuti mbale yodyetserayi yokhala ndi muyeso itati idzigwiritsidwa tchito kumudzi ingathandize bwanji azimayi ndi ana awo kuti akhale ndi thazi?

Kodi mukuona kuti sipuni ingakhale yothandiza bwanji kuona kuti phala lalimba?

Mungandiuzeko maganizo anu pa zamaonekedwe a kambale kodyeramo komaso sipuniyi?

Fusani za kakulidwe, mtundu komaso maonekedwe

Fusani ngati zizindikiro zikuoneka bwino

Mungakonde kuti tisinthe chani pa mbale yodyerayi ndi supuni kuti zikhale zovomerezeka kuno?

Kodi mukuganiza kuti ndi mavuto anji amene a mayi komaso ana angakumane nawo ngati atamagwiritsa ntchito kambale kodyera komanso sipuni pamene anali oyembekezera komaso pamene amayamwitsa ana awo ndikudyetsa ana amene ali ndi miyezi isanu ndi umodzi mpaka miyezi makumi awiri ndi mphambu zinayi?

Kodi mukuganiza kuti apongozi ndi ena pa banja panu azinena kuti chiyani pamene mukugwiritsa ntchito kambale kodyeramo komaso sipuni?

Monga ndafotokoza kale, mbale ndi sipuniyi izigwiritsidwa ntchito ndi a mayi pamene ali oyembekezera komaso pamene akuyamwitsa mwana kenako kugwiritsaso ntchito podyetsera mwana wao pamene wayamba kudya. Mukuganiza kuti azimayi ena m'mudzi muno azinena chiyani pa zinthuzi

Kwaiwo okha

Komaso kwa ana awo

Kodi ndi ndani m'mudzi muno amene sangagwirizane nazo kugwiritsa ntchito kambaleka komaso sipuniyi?

Maganizo anu ndi otani m'mene tingawire timbale todyeramoti komaso ma sipuniwa?

Kodi ziyenera kugwiritsidwa ntchito ndi ogwira ntchito okha? ziyenera kuperekedwa kuma banja okha, ziyenera kuperekedwa kuti ko, kodi ayenera kugawa ndi ndani?

Kodi ziyenera kuperekedwa mwa ulelere kapena pa mtengo otchipa

Monga mmene ndinafotokozera poyamba mbali iyi amayi Oyembekezera , oyamwitsa angathe kudyera komanso Mwana wamng'ono amene wayamba zakudya zowonjezera akhozanso kudyera. Mukuganiza kuti amayi ena mmudzi muno angaganize bwanji za mbale ndi supuni imeneyi.

Kwa iwo eni

Kwa mwana

Ndi ndani mmudzi muno amene angatsutsidwe kugwiritsa ntchito mbale imeneyi kudyera iye ndi mwana?

Fufuzani Chifukwa

Muli ndi maganizo ena mmene mbale imeneyi ndi supuni ingagawidwire mmudzi muno?

Funsani maperekedwe: Kodi oyenera kugwiritsa ntchito a khale a zaumoyo okha? Kapena onse amayi ndi azaumoyo? Adziperekera kuti? Opereka wo akhale ndani?

Funsani mtengo: Kodi zidziperekedwa mwa ulere? Kapena motsika mtengo?

Takambirana zambiri kwa tsiku lalero; zikomo chikukwa cha ndemanga zanu. Pomalirizila ndifunse chimene chili chobvuta kwambili amayi kuti asakwanitse zakudya zoonjezera komanso maphunziro a pamwamba ndi chiyani?.

Pali zina zomwe mukufuna kuti tikambirane zomwe sitinayankhulepo zo khudzana ndi nkhani yathu yaleroyi?

Zikomo chifukwa cha nthawi yanu

Tool 2: FGD guide: Atsogoleri ndi Azibambo (Community Leaders and Husbands)

Zolinga:

Kufuna kudziwa nzeru komaso maganizo pa zakudya zowonnjezera komaso zamadyedwe mu m'mudzi komaso mbali imene angatenge pothetsa mavuto

Kudziwa zikhalidwe pakhani ya zakudya zowonjezera mu m'mudzi

Kumvetsa nzeru komaso m'mene akuwonera pa za mbale zodyeramo komaso ma sipuni

M'mene amaonera ma uthenga amene amafika mu m'dera mwawo

Otenga nawo mbali: Azipongozi a chizimayi, azitsogoleri ndi a zimbambo)(Kupititsa zipangizo kwa anthu oyenelera Nthawi: 1.5-2 hours

Kupempha chiloledzo

Mawu oyamba

Zikomo, dzina langa ndine _____uyu ndi nzanga _____.

Tikugwira ndi a Emory University a ku America. Tikupanga kafukufuku yemwe akuyesa kupeza njira zoyenerera zothesera kunyentchera kumudzi kuno ,kwenikweni kwa ana omwe sanapyole zaka ziwiri zakubadwa. Mukufunsidwa kuti mutenge nawo gawo pa kafukufukuyi chifukwa ndinu oyembekezera kapena mai wa mwana/ana azaka zosapyola ziwiri, poyanganila kuti muli ndi nzeru komanso luso zomwe zili zothandiza kuti timvetse cholinga cha kafukufukuyi.Kutenga nawo gawo nkosakakamidza. Mukalola kukhala nawo mu zokambiranazimenezi, ziwani kuti titenga ola ndi theka kapena awiri.

Zakafukufukuyi: Tikufuna tikambirane ndikumva maganizo anu ndi mmene mumadyetsera ana ang'noang'ono ochepera zaka ziwiri ndi amayi apakati komanso oyamwitsa. Tikufunanso timvetsetse zobvuta zomwe mukumanazo pakadyetsedwe ka ana komanso momwe mukuganizira pa ziwiya zina zatsopano zofuna kuthandizira kadyetsedwe ka ana osaposa zaka ziwiri.

Ndondomeko: Ngati mwavomeredza kutenga nawo gawo mu zokambiranazi mukufunsidwa kuti mupereka maganizo komanso luso lanu pa kadyetsedwe ka mwana komanso maganizo anu pa zipangizo za tsopano zomwe zakonzedwa kuti zithandize kupitisa patsogolo thanzi la ana, azimayi oyembekezera ndi oyamwitsa. Tikambilana nanu kwa ma ola awiri. Mutha kusiya kutenga nawo gawo pa

zokalimbiranazi pa nthawi ina iliriyonse komanso mutha kusankha kusayankha nawo mafunso ena. . Dziwani kuti mukatenga nawo gawo zokambirana zonse zitachitike pano, sititenga maina anu.

Chioopsyedzo

Palibe choopsa china chilichonse pakutenga nawo mbali pa kafukufuku yu kupatula kuti mukhala nafe pano kwa kanthawi tikukambirana.

Ubwino : Simupeza ubwino wa pompopompo mu kafukufukuyi. Komabe tikuganizira kuti zotsatila za kafukufuku yi zizakhala ndi ubwino kwa anthu a kuno popereka uthenga ofunikira wa njira za pamwamba zodyetsera mwana ndi thanzi la mayi. Komanso mulandira Zozizilitsa kukhosi panthawi yomwe tikukambirana ndi ndalama yomwe mwayendera kwa amene mwachokera kutali.

Chinsinsi: Tikufuna kukambirana nanu momasuka ndipo mupereke maganizo anu kwa ife. Maganizo a wina aliyense ndi ofunikira chifukwa athandiza kukonza ndondomeko zomwe zithandize kupititsa patsogolo nthanzi labwino kwa amayi komanso ana awo. Kuti tisungirane chinsinsi cha wina ndi nzake, mukupemphedwa kutimusakambirane wina aliyense zomwe takambirana panozi. . Zonse zomwe takambirana pano zisungidwa mwachinsisni komanso maina anu sazatchulidwa pena pali ponse mu repoti..

Muli ndi funso lina lililonse kapena ndemanga?

Ofunsa : yankhani mafunso ena aliwonse ndipo mufotokoze kuti choyamba mukufuna kuti amvetse za kafukufukuyu ndi zomwe zikufunsidwa kwa otenga nawo gawo.

Alimbikitseni otenga nawo gawo kuti afunse mafunse . Mukuvomekeza kutenga nawo gawo mu zokambilanazi?

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Mndanda wa zochitika: Tisanayambe, ndafuna kuti mudziwe zochitika zathu kuti tipanga bwanji pa kukambiranaku. Ndafuna kuti ndifotokoze kuti palibe ansala yolondola kapena yolakwa. Tikufuna timve

maganizo anu,ndiye mukhale omasuka kufutokoza moona mnene mukumvera. Munthu mmodzi ndi amene ali ololedwa kuyankhula panthawi pofuna kuti timve mawu aliyense. Tikufuna timve chili chonse chomwe ati anene munthu, ndiye tikupemphani kuti mulankhule kwa gulu lonse mmalo moyankhula ndi omwe akuyandikini basi. Pomalizira ndikumbutse kuti ine ndikungotsogolera zokambirana oasti ndine kadaulo wa zomwe tipanga lerozi. Zomwe mutiuze ndizime ziti ziti zithandize mukafuku ameneyu. Kukambirana kutenga pafupi maola awiri. Muli ndi funso?

<u>Poyambira</u>

- Tiyeni tidziwane, aliyense atchule dzina lake ndi kambiri kake mwachitsazo za banja lanu ngakhale ana anu

PART A: Malangizo a ka dyedwe koyenera

- Malangizo kwa oyendetsa zokambirana:

Tiwayike anthu awa mumagulu, amayi asikhu obereka, azibambo, azamba , azigogo amuna , ogwira ntchito za umoyo, amayi oyembekezera , ana onse oyamwa, ana amene sanayambe kukhala pansi, ana amene akukwawa, komaso amene a mayimilira

Zikomo kwambiri kaamba kodziwana, monga tanena kala ndife osangalatsidwa kuphunzira pa zakudya komaso zikhalidwe zina zimene zimachitika pa kudya kwa azimayi oyembekezera komaso amene akuyamwitsa ana ndi ana amene ali kumudzi kuno. Tikufuna tidziweso malangizo pa zoavuta zimene amakuna nazo pambali ya kadyedwe kabwino.

Zikomo

Kuthokoza -- Ndikufuna kukuthokozani potenganawo mbali pa kafukufuyi. Azimayi amatha kulandira ma uphungu osiyanasiyana okhudza kadyedwe koyenera , ndikufuna mundiuze mwazina zimene azimayi amayi amatha kulandira . Ndikufuna mundiuze kommwe azimayi amatha kulandira malangizo.

GAWO 1: Chithudzi chomwe ndakuonetsani pano ichi ndi cha Rute, , Rute ali ndi pakati koma poyamba, iye sakudziwa za m'mene angamadyere pamene ali oyembekezera. Ngati mzimayi wina aliyense sakufuna kukumana ndi zovuta pobereka ndikuzabereka mwana wa thanzi:

a. Ndi malangizo otani amene mungamupatse Rute m'mene anga madyere pamene ali Oyembekezera

Fusani, zakudya zosayenera kudyedwa, zoyenera kudyedwa, zoyenera kudya kwambiri, zoyenera kudya pang'ono..

b) Mwa anthu amene tilipanofe, ndindani amene Rute angathe kumufotokozera mavuto ake, (*mwala upite kwa munthu amene mukuganiza kuti Rute angathe kukambirana naye) Ngati simungathe kusankhapo pakati pa anthu awiri , perekani mwala umodzi kwa munthu umodzi pa munthu aliyense.*

c) Ndichifukwa chiyani mwasakha munthu amenewa

d) Mukuganiza kuti ndimalangizo otani amene angamupatse Rute

e) Mukuganiza kwanu, kodi anthu amenewa ali ndiukadaulo pazakudya zoyenera za munthu amene ali oyembekezera? *(Ngati ndi inde, tilowe mugawo lina ngati ndi ayi, tiwafuse kuti tipeze gawo lina pogwiritsa ntchito mwala kupeza muthu amene alindikuthekera kupereka malangizo ndikufusa chifukwa chiyani azimayi samapita kwa munthu ameneyo?*

GAWO 2: *(Onetsani chithunzi cha mzimayi amene akuyamwitsa mwana)* Rose ali ndi mwana wa mamuna wa mwezi umodzi ndipo akudandaula kuti mkaka wa mawere ake sukutuluka mokwanira, ndipo akufuna malangizo kuti adziwe njira imene anga pange kuti azitulutsa mkaka okwanira mu mawere mwake

a)Kodi ndimalangizo otani amene mungapeleke kwa Rose pazimene ayenera kuchita(zakudya zimene sakuyenera kudya, zimene ayenera kudya kwambiri; kumpatsa mwana zakudya zina)
b) Pa anthu tonse amene tili pano, ndi ndani amene Rose angathe kumuuza mavuto ake. *Mwina simuna lingalire mozama, mutha kuyika miyala pa anthu a wiri.*
c)Ndi chifukwa chiyani mwasakha anthu amenewa?
d) Ndi malangizo otani mene angaperekedwe kwa Rose?
e) Mkuganiza kwanu, kodi anthu amenewa ali ndikuthekera kupereka uphungu pa zakadyedwwe koyenera pamene mzimayi ali oyembekezera? *(Ngati ndi inde, tipite ku gawo lina. Ngati ndi ayi, muwauze kuti apeze munthu wina pogwiritsa ntchito miyala imene alinayo ndikupeza munthu amene alindikuthekera kopereka malangizo oyenera).*

GAWO 3: Onetsani chithunzi cha mwana amene akukhala pansi:

Truphena ali ndi mwana wa mkazi amene alindi miyezi isanu ndi umodzi. Wakumbukira zimene anamva ku chipatala kuti mkaka wa mawere okha siokwanira kwa mwana amene wakwanitsa miyezi isanu ndi umodzi ndipo ayenera kuyamba kumupatsa mwana wake tizakudya timene sitolimba kwambiri. Ndopa alindimatha kuti zakudya ziyamba ku mutsamwa mwana pa khosi

a. Ndimalangizo otani amene mungapeleke pazimene ayenera kuchita,(zakudya zimene sakuyenera kupatsa mwana wake, zakudya zimene ayenera kudya mokwanira kuti mwana zimukwanira)

b) Pa anthu onse amene atakhala pano,ndi ndani amene Truphena angathe kumuuza mavuto ake. *Mwina simuna lingalire mozama, mutha kuyika miyala pa anthu a wiri kapena pa munthu mmodzi.*

c) Ndi chifukwa chiyani mwasakha anthu amenewa?

d) Ndi malangizo otani mene angaperekedwe kwa Trophena?

e) Mkuganiza kwanu, kodi anthu amene ali ndikuthekera kupereka uphungu pa zakadyedwe koyenera kwa mwana wamiyezi isanu ndiumodzzi? *Ngati ndi inde, tipite ku gawo lina, ngati ndi ayi, muwauze kuti apeze munthu wina pogwiritsa ntchito miyala imene alinayo ndikupeza munthu amene alindikuthekera kopereka malangizo oyenera.*

GAWO 4 Onetsani chithunzi cha mwana amene akukwawa:

Helen ali ndi mwana wa mkazi amene ali ndi miyezi isanu ndi inayi, waona mwana wa m'mchemwali wake amene akuvutika ndi matenda otsekula m'mimba ndiposo ku tsika sikero. Iye alindikhumbo lofuna kudyetsa mwana wake bwino kuti akule bwino komaso kuti asadwale

a) Ndimalangizo otani amene mungapeleke kwa Helen m'mene angadyetsere mwana wake *(amampatsa mowilikiza bwanji?; kuchuluka kwa zakudya?; kulimba kwake?; kasitha sitha ka zakudya?; Zakudya zimene sizoyenera, akudya zapadera za mwana, unkhondo).*
b) Mwa anthu amene tiliponofe, ndindani amene Rute angathe kumufotokozera mavuto ake? (mwala upite kwa munthu amene mukuganiza kuti Rute angathe kukambirana naye inu ngati simungathe.)

c) Ndichifukwa chiyani mwasakha munthu amenayu

d) Ndimalangizo otani amene mungapeleke kwa Helen?
e) Mkuganiza kwanu, kodi anthu amenewa ali ndikuthekera kupereka uphungu pa zakadyedwwe koyenera pamene mwana atatsika sikelo kapena kutsekula? *(Ngati ndi inde, tipite ku gawo lina, ngati ndi ayi, muwauze kuti apeze munthu wina pogwiritsa ntchito miyala imene alinayo ndikupeza munthu amene alindikuthekera kopereka malangizo oyenera.)*

→ Ngati nyama, somba, mazira, zipatso, mkaka ndi masamba obiliwira sanatchulidweko muzokambirana zathu, tiyenera kufusa mozama ndikudziwa thawi imene zithu zimenezi zingapelekedwe.

Part B: Mapangidwe atsopano a mbale yodyetsera ana ndi supuni yake –

Part B: Maganizo athu pa mbale ndi supuni zatsopanozodyetsera ana.

Zikomo chifukwa chodziwatsana kudzera mu zokambirana.Taphunzira kwambiri za mmene azimayi amadyera akakhala oyembekezera komanso akamayamwitsa ndi kudyetsa ana kumudzi kuno. Ndikuwonetsani zipangizo zomwe tikufuna kuti tiziyese kuti tione ngati zingathe kuthandiza azimayi ndi ana awo kudya bwino kumudzi kuno komanso kwina.

Ndikufuna ndiyambe ndikuwonetsa uphungu womwe uli pa khadi iyi (apatsireni makadi) Tengani mphindi zochepa kuwona khadi ndipo muganize uthenga womwe uli pakhadipo.

1. Mukuganiza kuti khadi limeli lili ndi uthenga wanji?

2. Kodi khadiyi ikukupatsani uthenga weni weni wotani? *[Atengeleni mtimagulu tosiyansiyana ngati nkofunikira.)*

3. Chosavuta kumvetsa ndi chiani?

4. Chimene musakumvetsa ndi chiyani?

5. Mukuganiza bwanji za zithunzi zili pa khadipo?
    a. Fufuzani: Anthu ? Zizindikilo?
    b. Fufuzani: Zizindikilozo ndi zithuzi zikuoneka bwino? Zazikulu bwino?Zikufotokoza uthenga bwino

6. Mukuganiza bwanji za mitundu/kalala yomwe yagwiritsidwa ntchitoyo?
    a. Fufuzani: Zikusangalatsa? Zogwirizana ndi phunziro? Chakudya chili mchodyeracho chili ndi mtundu woyenera?

7. Mukuganiza bwanji za zakudya zomwe mukuona pa? Pali zakudya zina tiwonjezere? Pali zakudya zina tichotsepo?

Owonetsani mbaleyo ndi supumi; pogwiritsa ntchito khadi fotokozani mmene mbaleyo ndi supuni zigwirire ntchito kwa mayi oyembekezera, oyamwitsa komanso mwana wa miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi kuwonetsetsa kuti pakhale thanzi lenileni.

8. Tsopano ndafotokoza za khadi ndi mbale yodyela ndi supuni, mungafotokoze zomwe mukufuna titasintha pakhadi kuti zisakhale zovuta kuti anthu amvetse.

Ndikufunsani mafunso tsono kweni kweni a mbale yodyela ndi supuni (Perekani mbale ndi supuni kwa anthu onse kuti awone)

9. Mukuganiza kuti mbale yodyetserayi yokhala ndi muyeso itati idzigwiritsidwa tchito kumudzi ingathandize bwanji azimayi ndi ana awo kuti akhale ndi thazi?

10. Kodi mukuona kuti sipuni ingakhale yothandiza bwanji kuona kuti phala lalimba?

11. Mungandiuzeko maganizo anu pa zamaonekedwe a kambale kodyeramo komaso sipuniyi?
    a. Fusani za kakulidwe, mtundu komaso maonekedwe
        i. Fusani ngati zizindikiro zikuoneka bwino
    b. Mungakonde kuti tisinthe chani pa mbale yodyerayi ndi supuni kuti zikhale zovomerezeka kuno?

12. Kodi mukuganiza kuti ndi mavuto anji amene a mayi komaso ana angakumane nawo ngati atamagwiritsa ntchito kambale kodyera komanso sipuni pamene anali oyembekezera komaso pamene amayamwitsa ana awo ndikudyetsa ana amene ali ndi miyezi isanu ndi umodzi mpaka miyezi makumi awiri ndi mphambu zinayi?

    a. Kodi mukuganiza kuti apongozi ndi ena pa banja panu azinena kuti chiyani pamene mukugwiritsa ntchito kambale kodyeramo komaso sipuni?

13. Monga ndafotokoza kale, mbale ndi sipuniyi izigwiritsidwa ntchito ndi a mayi pamene ali oyembekezera komaso pamene akuyamwitsa mwana kenako kugwiritsaso ntchito podyetsera mwana wao pamene wayamba kudya. Mukuganiza kuti azimayi ena m'mudzi muno azinena chiyani pa zinthuzi
    a. Kwaiwo okha

b. Komaso kwa ana awo

14.

a. Kodi ndi ndani m'mudzi muno amene sangagwirizane nazo kugwiritsa ntchito kambaleka komaso sipuniyi?

15. Maganizo anu ndi otani m'mene tingawire timbale todyeramoti komaso ma sipuniwa?
    a. Kodi ziyenera kugwiritsidwa ntchito ndi ogwira ntchito okha? ziyenera kuperekedwa kuma banja okha, ziyenera kuperekedwa kuti ko, kodi ayenera kugawa ndi ndani?
    b. Kodi ziyenera kuperekedwa mwa ulelere kapena pa mtengo otchipa

16. Monga mmene ndinafotokozera poyamba mbali iyi amayi Oyembekezera , oyamwitsa angathe kudyera komanso Mwana wamng'ono amene wayamba zakudya zowonjezera akhozanso kudyera. Mukuganiza kuti amayi ena mmudzi muno angaganize bwanji za mbale ndi supuni imeneyi.
    a. Kwa iwo eni
    b. Kwa mwana

17. Ndi ndani mmudzi muno amene angatsutsidwe kugwiritsa ntchito mbale imeneyi kudyera iye ndi mwana?
    a. Fufuzani Chifukwa

18. Muli ndi maganizo ena mmene mbale imeneyi ndi supuni ingagawidwire mmudzi muno?
    a. Funsani maperekedwe: Kodi oyenera kugwiritsa ntchito a khale a zaumoyo okha? Kapena onse amayi ndi azaumoyo? Adziperekera kuti? Opereka wo akhale ndani?
    b. Funsani mtengo: Kodi zidziperekedwa mwa ulere? Kapena motsika mtengo?

Takambirana zambiri kwa tsiku lalero; zikomo chikukwa cha ndemanga zanu. Pomalirizila ndifunse chimene chili chobvuta kwambili amayi kuti asakwanitse zakudya zoonjezera komanso maphunziro a pamwamba ndi chiyani?.

Pali zina zomwe mukufuna kuti tikambirane zomwe sitinayankhulepo zo khudzana ndi nkhani yathu yaleroyi?

Zikomo chifukwa cha nthawi yanu

Tool 3: Mafunso a pagulu kwa azimai a chitsanzo (lead mothers) ndi aphunzitsi a care group

Cholinga:

iv. Kuti tidziwe ngati amai otsogolera magulu akumvetsetsa za kadyedwe ka ana ang'onoang'ono ndi makanda m'midzi yao komanso m'mene akuonera udindo wawo pa nkhani imeneyi.
v. Kupeza m'mene akuyendetsera nkhani ya chakudya choonjezera ndipo chikhulupiliro chawo pa za kadyedwe ka ana ang'onoang'ono ndi makanda
vi. Kupeza njira othandizana magwiridwe antchito kwa a zaumoyo, njira zina zothandizira kadyetsedwe ka an ang'onong'ono ndi makanda mmudzi ndi zina zoonjezera zimene angafune a zaumoyo pofuna kuthetsa mafuto amene akukumana nawo pa madyedwe a ana ang'onoang'ono.

Anthu ofunsidwa: Ma Lidi mothers ndi oyendetsa care group

Nthawi: 1.5-2 hours

Zofunika: FGD guide (3), mbale zodyetsera ana masupuni (magulu 4), makadi a alangizi (5), zolembera (5), 2 makope (2), Fulipi chati, Zolembera pa fulipi chati (2), zithunzi za ana pa misinkhu yosiyana siyana, zakumwa (mkaka, zodyera , zipatso) ndalama zoyendera anthu ofunsidwa mafunso).

Poyambira

Mawu oyamba

Zikomo, dzina langa ndine _____uyu ndi nzanga _____.

Tikugwira ndi a Emory University a ku America. Tikupanga kafukufuku yemwe akuyesa kupeza njira zoyenerera zothesera kunyentchera kumudzi kuno ,kwenikweni kwa ana omwe sanapyole zaka ziwiri zakubadwa. Mukufunsidwa kuti mutenge nawo gawo pa kafukufukuyi chifukwa ndinu oyembekezera kapena mai wa mwana/ana azaka zosapyola ziwiri, poyanganila kuti muli ndi nzeru komanso luso zomwe zili zothandiza kuti timvetse cholinga cha kafukufukuyi.Kutenga nawo gawo nkosakakamidza. Mukalola kukhala nawo mu zokambiranazimenezi, ziwani kuti titenga ola ndi theka kapena awiri.

Zakafukufukuyi: Tikufuna tikambirane ndikumva maganizo anu ndi mmene mumadyetsera ana ang'noang'ono ochepera zaka ziwiri ndi amayi apakati komanso oyamwitsa. Tikufunanso timvetsetse zobvuta zomwe mukumanazo pakadyetsedwe ka ana komanso momwe mukuganizira pa ziwiya zina zatsopano zofuna kuthandizira kadyetsedwe ka ana osaposa zaka ziwiri.

Ndondomeko: Ngati mwavomeredza kutenga nawo gawo mu zokambiranazi mukufunsidwa kuti mupereka maganizo komanso luso lanu pa kadyetsedwe ka mwana komanso maganizo anu pa zipangizo za tsopano zomwe zakonzedwa kuti zithandize kupitisa patsogolo thanzi la ana, azimayi oyembekezera ndi oyamwitsa. Tikambilana nanu kwa ma ola awiri. Mutha kusiya kutenga nawo gawo pa

zokalimbiranazi pa nthawi ina iliriyonse komanso mutha kusankha kusayankha nawo mafunso ena. . Dziwani kuti mukatenga nawo gawo zokambirana zonse zitachitike pano, sititenga maina anu.

Chioopsyedzo

Palibe choopsa china chilichonse pakutenga nawo mbali pa kafukufuku yu kupatula kuti mukhala nafe pano kwa kanthawi tikukambirana.

Ubwino : Simupeza ubwino wa pompopompo mu kafukufukuyi. Komabe tikuganizira kuti zotsatila za kafukufuku yi zizakhala ndi ubwino kwa anthu a kuno popereka uthenga ofunikira wa njira za pamwamba zodyetsera mwana ndi thanzi la mayi. Komanso mulandira Zozizilitsa kukhosi panthawi yomwe tikukambirana ndi ndalama yomwe mwayendera kwa amene mwachokera kutali.

Chinsinsi: Tikufuna kukambirana nanu momasuka ndipo mupereke maganizo anu kwa ife. Maganizo a wina aliyense ndi ofunikira chifukwa athandiza kukonza ndondomeko zomwe zithandize kupititsa patsogolo nthanzi labwino kwa amayi komanso ana awo. Kuti tisungirane chinsinsi cha wina ndi nzake, mukupemphedwa kutimusakambirane wina aliyense zomwe takambirana panozi. . Zonse zomwe takambirana pano zisungidwa mwachinsisni komanso maina anu sazatchulidwa pena pali ponse mu repoti..

Muli ndi funso lina lililonse kapena ndemanga?

Ofunsa: yankhani mafunso ena aliwonse ndipo mufotokoze kuti choyamba mukufuna kuti amvetse za kafukufukuyu ndi zomwe zikufunsidwa kwa otenga nawo gawo.

Alimbikitseni otenga nawo gawo kuti afunse mafunse. **Mukuvomerezeka kutenga nawo gawo mu zokambilanazi?**

Contact Information: If you have any questions about this study or your part in it, or if you have questions, concerns or complaints about the research then please contact:

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You may also contact the Emory Institutional Review Board at 404-712-0720 or irb@emory.edu:

if you have questions about your rights as a research participant.

if you have questions, concerns or complaints about the research.

Mndanda wa zochitika: Tisanayambe, ndafuna kuti mudziwe zochitika zathu kuti tipanga bwanji pa kukambiranaku. Ndafuna kuti ndifotokoze kuti palibe ansala yolondola kapena yolakwa. Tikufuna timve maganizo anu,ndiye mukhale omasuka kufutokoza moona mnene mukumvera. Munthu mmodzi ndi amene ali ololedwa kuyankhula panthawi pofuna kuti timve mawu aliyense. Tikufuna timve chili chonse chomwe ati anene munthu, ndiye tikupemphani kuti mulankhule kwa gulu lonse mmalo moyankhula ndi omwe akuyandikini basi. Pomalizira ndikumbutse kuti ine ndikungotsogolera zokambirana oasti ndine kadaulo wa zomwe tipanga lerozi. Zomwe mutiuze ndizime ziti ziti zithandize mukafuku ameneyu. Kukambirana kutenga pafupi maola awiri. Muli ndi funso?

Kudziwana

Tiyeni tiyambe mwana akangobadwa, ndi chakudya chanji chimene amapatsidwa? Nanga inu mungafune kuti adzipatsidwa chani?

Ngati tatchula mkaka wam'mawere funsani kuti akuganiza kuti mkakawu mwana adzipatsidwa nthawi iti?

Pali chakudya china ndi zakumwa zina zowonjedzera zimene angavomereze musabata yoyamba ya mwana?

Nanga mwana akamakula ndi zakudya ziti zimene akuyenera kupatsidwa?

Funsani zakudya zomwe akuyenera kupatsidwa ndipo nthawi yake. Ikani izi pa mulingo wa kukula kwa mwana.

Kodi mwana amapatsidwa zakudya zolimba bwanji?

Nanga ndi chifukwa chani amapatsidwa zakudya zimenezi pa nthawi imeneyi?

Ngati sanatchule, ndi nthawi iti iti imene alangizi amalangiza kuti ana azipatisdwa chakudya cholimbilako?

Nanga ana a miyezi 6 mpaka chaka chimodzi adzidya chakudya cholimbirako chambiri bwanji?

Onani: Ngati nyama, mkaka wa ng'ombe, mazira, zipatso, ndiwo za masamba sanatchule funsani kuti zakudya zimenezi ziziperekedwa kwa mwana liti?

Poqwiritsa ntchito nthawi lembani mwachidule ntchito zomwe pgwira ntchito akuyenera kuchita pa kadyetsedwe ka ana kuchuluka kwake, kangati ndipo kuwirikiza kwake. Funsani ngati mwanena molondola.

Perekani miyala iwiri kwa ofunsidwa mafunso:

1. Perekani miyala iwiri kwa munthu aliyense. Pempani anthu kuti aike mwala umodzi pa langizo lomwe akuwona kuti liri lovuta kukwaniritsa. Kwa amai ndi mabanja. Nthirani ndemanga anthu onse akamaliza. Funsani kuti afotokoze chifukwa chomwe apereka za malangizo awo. Kodi izi zikukhudza mabanja kapena mudzi onse.

2. Perekani miyala iwiri kwa munthu aliyense. Pemphani anthu kuti aike mwala umodzi pa langizo lomwe akuwona kuti ndi losavutata kukwaniritsa kwa mayi kapena mabanja. Nthirani ndemanga anthu onse akamaliza. Funsani kuti afotokoze chifukwa chomwe apereka za malangizo awo. Kodi izi zikukhudza mabanja kapena mudzi onse. Now I would like for you to each take two stones.

3. Ndi chani chimene chimapangitsa kuti malangizo ena adzikhala osavuta kwa mabanja kapena mudzi kutsatira?

Mbali yachiwiri: Chakudya nthawi yoyembekezera kapena yoyamwitsa

Zomwe takambirana kale ndi zofunika. Tsopano tikambirana mai akhala woyembekezera kapena akamayamwitsa.

Chakudya nthawi yoyembekezera:

Kodi azimayi akakhala ndi pakati amadya chani m'mudzi muno? [Fufuzani chakudya chambiri chochepa nanga, amasala zina]

Nanga ndi uphungu wanji alangizi amanena pa kadyedwe mai akakhala woyembekezera?

Winanso ndani amene amalangiza azimai za kadyedwe akakhala woyembekezera? Amawalangiza zotani?

M’maganizo anu kodi azimayi amamvera ndani, chifukwa chani?

M’maganizo anu ndi malangizi ati amene ali ovuta kuwatsata, chifukwa chani?

Chakudya nthawi yoyamwitsa:

Kodi azimayi akamayamwitsa amadya chani m’mudzi muno? [Fufuzani chakudya chambiri chochepa nanga, amasala zina]

Ndi uphungu wanji alangizi amanena pa kadyedwe mai akamayamwitsa?

Winanso ndani amene amalangiza azimai za kadyedwe akamayamwitsa? Amawalangiza zotani?

M’maganizo anu kodi azimayi amamvera ndani, chifukwa chani?

M’maganizo anu ndi malangizi ati amene ali ovuta kuwatsata, chifukwa chani?

Part B: Maganizo athu pa mbale ndi supuni zatsopanozodyetsera ana.

Zikomo chifukwa chodziwatsana kudzera mu zokambirana.Taphunzira kwambiri za mmene azimayi amadyera akakhala oyembekezera komanso akamayamwitsa ndi kudyetsa ana kumudzi kuno. Ndikuwonetsani zipangizo zomwe tikufuna kuti tiziyese kuti tione ngati zingathe kuthandiza azimayi ndi ana awo kudya bwino kumudzi kuno komanso kwina.

Ndikufuna ndiyambe ndikuwonetsa uphungu womwe uli pa khadi iyi (apatsireni makadi) Tengani mphindi zochepa kuwona khadi ndipo muganize uthenga womwe uli pakhadipo.

Mukuganiza kuti khadi limeli lili ndi uthenga wanji?

Kodi khadiyi ikukupatsani uthenga weni weni wotani? *[Atengeleni mtimagulu tosiyansiyana ngati nkofunikira.)*

Chosavuta kumvetsa ndi chiani?

Chimene musakumvetsa ndi chiyani?

Mukuganiza bwanji za zithunzi zili pa khadipo?

Fufuzani: Anthu ? Zizindikilo?

Fufuzani: Zizindikilozo ndi zithuzi zikuoneka bwino? Zazikulu bwino?Zikufotokoza uthenga bwino

Mukuganiza bwanji za mitundu/kalala yomwe yagwiritsidwa ntchitoyo?

Fufuzani: Zikusangalatsa? Zogwirizana ndi phunziro? Chakudya chili mchodyeracho chili ndi mtundu woyenera?

Mukuganiza bwanji za zakudya zomwe mukuona pa? Pali zakudya zina tiwonjezere? Pali zakudya zina tichotsepo?

Owonetsani mbaleyo ndi supumi; pogwiritsa ntchito khadi fotokozani mmene mbaleyo ndi supuni zigwirire ntchito kwa mayi oyembekezera, oyamwitsa komanso mwana wa miyezi isanu ndi umodzi mpaka makumi awiri ndi inayi kuwonetsetsa kuti pakhale thanzi lenileni.

Tsopano ndafotokoza za khadi ndi mbale yodyela ndi supuni, mungafotokoze zomwe mukufuna titasintha pakhadi kuti zisakhale zovuta kuti anthu amvetse.

Ndikufunsani mafunso tsono kweni kweni a mbale yodyela ndi supuni. (Perekani mbale ndi supuni kwa anthu onse kuti awone)

Mukuganiza kuti mbale yodyetserayi yokhala ndi muyeso itati idzigwiritsidwa tchito kumudzi ingathandize bwanji azimayi ndi ana awo kuti akhale ndi thazi?

Kodi mukuona kuti sipuni ingakhale yothandiza bwanji kuona kuti phala lalimba?

Mungandiuzeko maganizo anu pa zamaonekedwe a kambale kodyeramo komaso sipuniyi?

Fusani za kakulidwe, mtundu komaso maonekedwe

Fusani ngati zizindikiro zikuoneka bwino

Mungakonde kuti tisinthe chani pa mbale yodyerayi ndi supuni kuti zikhale zovomerezeka kuno?

Kodi mukuganiza kuti ndi mavuto anji amene a mayi komaso ana angakumane nawo ngati atamagwiritsa ntchito kambale kodyera komanso sipuni pamene anali oyembekezera komaso pamene amayamwitsa ana awo ndikudyetsa ana amene ali ndi miyezi isanu ndi umodzi mpaka miyezi makumi awiri ndi mphambu zinayi?

Kodi mukuganiza kuti apongozi ndi ena pa banja panu azinena kuti chiyani pamene mukugwiritsa ntchito kambale kodyeramo komaso sipuni?

Monga ndafotokoza kale, mbale ndi sipuniyi izigwiritsidwa ntchito ndi a mayi pamene ali oyembekezera komaso pamene akuyamwitsa mwana kenako kugwiritsaso ntchito podyetsera mwana wao pamene wayamba kudya. Mukuganiza kuti azimayi ena m'mudzi muno azinena chiyani pa zinthuzi

Kwaiwo okha

Komaso kwa ana awo

Kodi ndi ndani m'mudzi muno amene sangagwirizane nazo kugwiritsa ntchito kambaleka komaso sipuniyi?

Maganizo anu ndi otani m'mene tingawire timbale todyeramoti komaso ma sipuniwa?

Kodi ziyenera kugwiritsidwa ntchito ndi ogwira ntchito okha? ziyenera kuperekedwa kuma banja okha, ziyenera kuperekedwa kuti ko, kodi ayenera kugawa ndi ndani?

Kodi ziyenera kuperekedwa mwa ulelere kapena pa mtengo otchipa

Monga mmene ndinafotokozera poyamba mbali iyi amayi Oyembekezera , oyamwitsa angathe kudyera komanso Mwana wamng'ono amene wayamba zakudya zowonjezera akhozanso kudyera. Mukuganiza kuti amayi ena mmudzi muno angaganize bwanji za mbale ndi supuni imeneyi.

Kwa iwo eni

Kwa mwana

Ndi ndani mmudzi muno amene angatsutsidwe kugwiritsa ntchito mbale imeneyi kudyera iye ndi mwana?

Fufuzani Chifukwa

Muli ndi maganizo ena mmene mbale imeneyi ndi supuni ingagawidwire mmudzi muno?

Funsani maperekedwe: Kodi oyenera kugwiritsa ntchito a khale a zaumoyo okha? Kapena onse amayi ndi azaumoyo? Adziperekera kuti? Opereka wo akhale ndani?

Funsani mtengo: Kodi zidziperekedwa mwa ulere? Kapena motsika mtengo?

Takambirana zambiri kwa tsiku lalero; zikomo chikukwa cha ndemanga zanu. Pomalirizila ndifunse chimene chili chobvuta kwambili amayi kuti asakwanitse zakudya zoonjezera komanso maphunziro a pamwamba ndi chiyani?.

Pali zina zomwe mukufuna kuti tikambirane zomwe sitinayankhulepo zo khudzana ndi nkhani yathu yaleroyi?

Zikomo chifukwa cha nthawi yanu!