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Full Length Research

# Mother's Perception of Protein Energy Malnutrition in Children Under Five Years: An Exploratory and Descriptive Qualitative Study Conducted at Chipata Health Centre, Chipata Compound in Lusaka

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The mothers' perception of malnutrition in relation to causality, signs and symptoms, prevention, treatment and curability can influence decision making and health care seeking behaviours. Therefore, to be effective, health education interventions should be anchored on a good understanding of the mother's perspective. This qualitative study used three Focus Group Discussions with a total of 30 mothers from Chipata compound in Lusaka to explore the perceptions of mothers. Malnutrition was known as a common childhood disease and was considered to be fatal but curable if treated early. Early symptoms were difficult to know and were confused with other common childhood diseases such as worms, diarrhoea and malaria. Delays in care seeking were reported, arising from the practice of first treating symptoms at home and consulting local health systems. Hunger, lack of food, disease and poor feeding practices were said to be the major causes of malnutrition, however, beliefs in witchcraft, violation of sexual taboos and breastfeeding while pregnant featured in all the groups. Poverty, negative attitudes, working mothers, inexperienced carers and alcoholism were also mentioned. Mothers believed that modern medicine was effective in treating malnutrition while traditional medicine was indicated as an alternative. Social stigma was said to be a major stumbling block to care seeking. These findings point to the need to understand the knowledge and behaviour of the mothers, the cultural context, and other broader determinants and to address incorrect beliefs and misconceptions.

Keywords: Malnutrition; Perceptions; knowledge; Health care seeking behaviours; Mothers.

# INTRODUCTION

Malnutrition is a major global public health problem particularly in developing countries. Global estimates show that while stunting rates are dropping, the number of stunted children in Africa is rising, from 50.4 million in 2000 to 58.5 million in 2015 (UNICEF, *et al.*, 2016). Zambia has a high prevalence of childhood malnutrition exemplified by high levels of stunting at 40 percent and underweight at 15 percent (CSO, *et al.*, 2013). With a high ratio of under-five mortality estimated to be 64 per 1000 live births (CSO, *et al.*, 2013), reducing malnutrition is one of the top priorities for improving child health and survival in line with the Sustainable Development Goal number three target which aims to reduce under-five mortality to at least as low as 25 per 1,000 live births by 2030.

The causes of malnutrition and how to treat it have been well documented (UNICEF, 1998; Ashworth, *et al.*, 2003; WHO *et al.*, 2007, WHO, 2011). Various child

survival interventions have been implemented in the country including the Infant and Young Child Feeding Strategy (MOH, 2006) which is based on the WHO/UNICEF global strategy (2003). The success of interventions aimed at reducing the current levels of malnutrition will also depend on strengthening behaviour change programmes particularly those targeting mothers. Research shows that the mother's knowledge, beliefs and attitudes on childhood malnutrition influence decision making and care practice (Nichter, M., 1985; Sivaramakrishnan and Patel, 1993; Mull, 1991; Saito, et al., 1997). Equally, the mothers' understanding about nutrition, their beliefs, attitudes and practices have a bearing on the child's nutritional status (Abbi, et al., 1988; Gupta, et al., 1991; Bhat, et al., 1992; Appoh, 1999).

Therefore, in order to be effective, health education interventions should be anchored on a good understanding of the mother's perspective. Research shows that the mother understands about the causes of malnutrition and how it should be addressed is not always in line with that of the health workers (Ojofeitimi, 1982; Nichter, 1985; Mull, 1991, Appoh, 1999; Abubakar, *et al.*, 2011). These studies also show that while some beliefs held by mothers about malnutrition are true and need reinforcement, some beliefs and practices are harmful and need to be addressed.

One of the major criticisms raised by social scientists is that little effort has been made to understand the mother's perspective on malnutrition (Ojofeitimi, 1982; Saito, et al., 1997; Appoh, 1999). Such on perceptions of mothers on malnutrition are very limited in Zambia. According to Frankel, et al. (1991) the failure to take into account the view point of those whose behaviours we intend to change leads to failure of most behaviour change interventions. Many authors have therefore emphasized the fact that malnutrition can be better addressed by taking into consideration the perceptions of mothers when planning interventions (Ojofeitimi, 1982; Saito, 1997; Engle, et al., 1997). The use of gualitative methods such as interviews and Focus Group Discussions is useful in exploring people's understanding of health. The Focus Group Discussion FGD) in particular is recommended as a useful tool for understanding people's experiences of disease and health services as well as exploring attitudes (Bash 1987). This research therefore used the FGD method to understand the mothers' perspective on malnutrition in Chipata compound.

#### Study area

The study was conducted at Chipata health centre,

in Chipata compound. Chipata health centre is one of the largest health centres under the Lusaka District Medical Office. Located about 8 kilometres in the north of the city of Lusaka, it caters for a population of 121,161 in its catchment area which includes Chipata compound and some parts of Roma, Chazanga and Mandevu. In this study Chipata compound will be used to refer to the catchment area. The under-five population is estimated to be 20% of the total population (MOH, 2011). The area has a high density population comprising people from diverse socio-economic backgrounds. Most of the inhabitants are in informal employment. Access to clean water supply is 96% while 95% of the population uses pit latrines (MOH, 2012). Malnutrition is endemic in the area and the prevalence of chronic malnutrition is 29%, while 7.0% of the children are underweight and 2.3% are wasted (MOH, 2008). In 2010, Severe Malnutrition was reported to be number one on the top ten causes of Under Five Mortality at Chipata Health Centre (MOH. 2012). Malaria, diarrhoeal diseases, HIV and AIDS, pneumonia and anaemia are also common conditions affecting children under five. The nutrition clinic at the health centre provides food, nutrition counselling and cooking demonstration services to mothers with malnourished children. At community level, child health promoters provide health education and help with growth monitoring and referral of cases to the health centre. Traditional healers are also found in the communities and are consulted by the general public for various health and social problems.

The majority of children who are admitted at the malnutrition ward at the University Teaching Hospital in Lusaka come from urban compounds (Khan and Gupta 1977; Ministry of Health and the National Food and Nutrition Commission, 2008). A survey conducted by the Ministry of Health and the National Food and Nutrition Commission (2008) revealed that mortality rates among severely malnourished children admitted to the University Teaching Hospital which serves as the national referral hospital had risen to as high as 40-50 percent.

# **Study Aims**

This study was meant to find out the mothers' perceptions of malnutrition. The specific aims were: to explore the mothers' understanding and beliefs in terms of causation, symptoms, prevention, treatment and curability; to investigate the attitudes towards malnutrition and the child who gets affected by the disease and to investigate the health-care-seeking attitudes and practices. The overall aim of the study was to contribute to the much needed evidence which is

required for design and implementation of health education interventions which are culturally relevant to the community in order to reduce morbidity and mortality.

#### Methods

The Focus Group Discussions (FGD) method was used for data collection. The FGD have the benefit of interaction of group members because unlike in-depth interviews, group interaction stimulates richer responses as it allows participants to agree or disagree (Feyisetan, 1994). Compared to interviews, the use of open ended questions allows better exploration of participant's views and generates more critical comments (Kitzinger, 1995). A Focus Group Discussion guide was developed in English and was translated into Nyanja, one of the commonly used languages in Chipata compound. The FGD sessions were facilitated by the principal investigator with assistance of a trained moderator. The discussions were audio recorded, transcribed and translated into English. The thematic framework method was used to analyse the content. Three Focus Group Discussions each comprising an average of 8 to 10 participants were conducted over a period of one week. The discussions were conducted at Chipata Health Centre. Each group met once.

The participants were purposively recruited from among the mothers who were present at the under-five clinic and who were willing to participate. According to Richie et al., (2003) purposive sampling is criterion based and involves selecting participants who possess particular features or characteristics which would enable detailed exploration and understanding of the major themes or questions under study. Participants were women of different age groups with at least two children under the age of five and who were also able to speak Nyanja which was going to be used during the Focus Group Discussions. Considering their role as primary care givers of children, mothers are a rich source of information on malnutrition and it was assumed the study would benefit from their experiences in the community.

#### **Ethical considerations**

Ethical approval for this study was obtained from the University of Zambia, Research Ethics Committee. Ethical approval is recommended for any study which concerns interaction with human participants (Mack, *et al.*, 2005). Written informed consent was obtained from each participant and they were briefed about the research and asked for permission to audio-tape the discussions. Participants were assured of confidentiality and they were informed that participation was voluntary and that one could freely withdraw their participation without any negative repercussions.

#### Study findings

# General awareness, knowledge and understanding about Malnutrition

The FGDs were started by showing the participants two pictures (A and B), one with a child suffering from Marasmus (Picture A) and the other of a child suffering from Kwashiokor (Picture B) and for each picture they were asked to identify the disease and to explain what they knew about it. In all the groups, mothers recognized Kwashiokor and Marasmus as "malnutrition" and said that it was the same ailment but showing different symptoms.

Even this child is suffering from malnutrition. This child the legs get swollen, the other gets thin, it is the same disease........."

Malnutrition was known as a disease of hunger, a very common condition affecting mainly children under five years particularly at the time of weaning. Although perceived to be a common condition in childhood, mothers believed that it was deadly if it was not treated early. However, some believed that it was not a serious disease as long as the mother knew what to do about it. Malnutrition was looked at as a shameful disease and in most cases the mother experienced stigma in the community and from health workers at the health centre.

When participants were asked about the name of the disease in vernacular, different names were mentioned in some of the languages spoken within their community because not all the tribes were represented among the participants. The explanations for these names related either to the symptoms of Kwashiokor and Marasmus or what was believed to be the cause. For example, in Chinyanja, mwana olwala njala (a child who is sick as a result of hunger) refers to a child suffering from Marasmus, Mwana Uwanjise refers to a child suffering from Kwashiokor as a result of early cessation of breastfeeding when the mother gets pregnant while in Chibemba, Chifimba (A swollen child) refers to a child suffering from Kwashiokor, and Ukukowesha Umwana is the explanation given for a child suffering from malnutrition as a result of violation of sexual taboos by the parents.

#### Recognition of signs and symptoms

The participants said that a child with Marasmus becomes very thin while Kwashiokor resulted in the swelling of the body, a shiny skin and a big stomach. In addition to these symptoms, frequent diarrhoea, loss of weight, lack of energy, retarded growth, thin hair, loss of appetite, sadness, pale skin and eyes and change in the voice were also mentioned in all the groups. However, participants said that Kwashiorkor was difficult to diagnose in early stages:

"This disease is difficult to know, the child looks fat, by the time you realize, it is sick, it is serious".

The early symptoms were easily confused with other illnesses such as diarrhoea, malaria, worms and lack of appetite and were usually managed at home. Participants also said it was difficult for them to know the disease because in some cases there could be other underlying problems especially where a child was well fed but failed to thrive. One participant said this in relation to HIV:

"These days there is HIV that disease is so common here,...., you know these days in the compound the children look like they have malnutrition, but really the problem is HIV".

#### Beliefs about causes

Hunger, lack of food, inadequate intake of food due to lack of appetite and disease were the most cited causes of malnutrition. Mothers also said that from their experience, it was very common for a child to develop malnutrition at the time of weaning. In one of the groups mothers raised a concern that some women who are HIV positive stopped breastfeeding at 6 months and that the child fell sick if the mother was not able to buy milk and other nutritious food. However, there were discordant views about weaning:

"For me it is not so much that the child stops to breastfeed, for me the biggest problem is lack of food,.... a child needs milk, eggs, fruits, kapenta etc.".

Mothers also held a strong belief that poor feeding and care practices caused malnutrition in children. In a heated debate in one of the groups, one participant commented:

"Carelessness, some mothers don't care about cooking for the child, a child should eat more times than an adult, at least 5 times in a day......But women would rather chat with friends......" (Participant shows emotion of anger).

In all the group discussions what was considered to be poor feeding and care practices included: not giving enough food; lack of variety in the diet; inadequate number of feeding times and giving foods with little nutritional value. In one group it was said that in some cases mothers fed the child with maize meal porridge or *Chimbala* (Cold Nshima, a thick maize meal porridge) without supplementing with other nutritious foods.

In all the groups, common childhood diseases such as diarrhoea, and worms were mentioned as factors which make children susceptible to malnutrition. The mothers also believed that children with HIV were likely to suffer from malnutrition (see table 1).

Witchcraft was mentioned in all the groups, particularly in relation to Kwashiokor, however, none of the participants personally said that they believed in witchcraft but they said the belief was common in the community.

"Some believe in witchcraft, but they just lack knowledge, you the mother you are actually the witch if you don't feed the child well. They take to the traditional healer, but those who know they can tell it is malnutrition."

Various cultural explanations and beliefs about the cause of malnutrition were brought up in all the groups. There was general agreement that a child could suffer from malnutrition through violation of sexual taboos by the mother or the father, if the mother got pregnant while breastfeeding and if a spirit of anger and frustration (*Chikonko*) engulfed the child as a result of cessation of breastfeeding. Poverty emerged as a major contributing factor to malnutrition particularly where families could not afford to adequately meet the nutritional need of a child. Participants also raised concerns about working mothers who leave the child with inexperienced young carers, women who leave a child to go and drink alcohol, negative attitudes, laziness and carelessness.

# Beliefs about prevention, treatment and curability of malnutrition

Participants generally believed that malnutrition was preventable. They answered in chorus fashion about the need to give nutritious food. One participant emphasized the importance of a good diet:

"The secret is good feeding, not "Zigolo", (a cold sugar solution), and a bun!, a child should be given milk, fruits, bananas, potatoes and meat".

However, some mothers were sceptical about total prevention through dietary means. They held strong beliefs that traditional means of protection such as herbal baths, herbal drinks and tattoos were also needed. Additional preventive measures were mentioned particularly correct feeding practices, variety in the diet, giving medicine for appetite, taking the child to the under- five clinic, testing for HIV, preventing HIV **Table 1:** Beliefs held by mothers in Chipata compound about causes of Malnutrition

Bio-Medical /or related	Socio-economic	Cultural
<ul> <li>Hunger</li> <li>Lack of food</li> <li>Poor feeding and care practices</li> <li>Giving insufficient food</li> <li>Lack of variety of food</li> <li>Feeding only 3 times a day (using adult timetable)</li> <li>Giving cold left-over food e.g. Chimbala (cold nshima, a thick maize meal porridge)</li> <li>Giving maize meal porridge with salt only</li> <li>Lack of appetite</li> <li>Naturally difficult child to feed</li> <li>Weaning of a child</li> <li>Premature weaning of a child due to HIV</li> <li>Disease</li> <li>Diarrhoea</li> <li>HIV and Aids</li> <li>Malaria</li> <li>Worms</li> </ul>	<ul> <li>Poverty</li> <li>Working mothers leave children with inexperienced carers</li> <li>Alcoholism</li> <li>Women's lack of resources</li> <li>Men not providing nutritional needs for their families</li> <li>Laziness and sheer irresponsible behaviour</li> </ul>	<ul> <li>A child touched by a woman who had an abortion and was not cleansed.</li> <li>Breastfeeding while pregnant</li> <li>Spiritual</li> </ul>

transmission by a pregnant mother to the unborn child and teaching mothers about nutrition at under five clinics.

When participants were asked about the right treatment for malnutrition, the common answer was giving modern or traditional medicine for appetite and feeding a child with nutritious food. The mothers were aware about the counselling and nutrition services at the health centre and believed that Ready to Use Therapeutic Foods and milk was effective. "Here at the clinic, they give medicine, they also give milk and soya, and you come every Tuesday for the child to be checked. However, they believed that treatment would only be effective if the child was taken early to the health facility and if the mother followed strict dietary instructions and visited the clinic regularly. Treatment was perceived to take as long as 5-6 months. Mothers also said that traditional therapies particularly herbal baths, herbal drinks and tattoos were effective in treating malnutrition particularly when they believed that the cause was natural, spiritual or other cause.

While some participants believed that malnutrition was curable some expressed doubts about a complete cure. One participant echoed her views: *"For a child with Kwashiokor even the legs are not okey, the legs bend and remain like that, the bones are also affected, me I saw the way my neighbour's child is, it does not walk well......"*.

# Health care seeking behaviour

Data from all the focus group discussions shows that mothers rely on self-help measures to treat early symptoms (Figure 1). Most of the participants said that if they suspected that the child was getting malnourished, the first step was to change the diet. They reported buying medicine from the local chemist and traditional medicines from the markets to treat ailments like diarrhoea and worms and to improve appetite. If the child did not improve, some reported consulting traditional healers. However, when the symptoms started to get worse, the child was taken to the health facility. One participant made this observation:

*"If it is diarrhoea, they go to the chemist, if it fails, then they go to the clinic for check-up"* 

Traditional healers were also seen as an alternative for treatment when the self-help measures and modern medicine did not improve the child's condition. *"If there is no HIV, then we can go to the traditional healer because someone can fall sick and they don't see anything at the clinic"* 

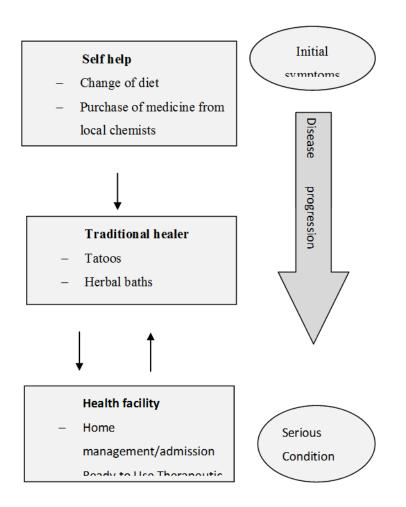


Figure 1: Health care seeking pattern for malnutrition by mothers in Chipata compound

## Attitude towards a child with malnutrition

In all the groups, mothers viewed malnutrition as a shameful disease and most of them felt that they would not want their child to suffer from it. However, they expressed feelings of sympathy and some said they had supported a friend to get help from the clinic. The social stigma associated with the disease in the community was a source of concern:

"We also need to sensitize women, the way we look at our friends with such children is not good............ Some even laugh about it."

A malnourished child was hidden from the public eye and was not taken to the under-five clinic. One participant commented about stigma at the clinic:

"Why we fear to come to the clinic, it is the nurse.....the nurses shout if you come with a child who is suffering from malnutrition, they even call their workmates to come and see the child and they start comparing with other children"

### DISCUSSION

This study revealed diverse perceptions about malnutrition concerning the causes, symptoms, treatment and curability and health care seeking behaviour. These findings have implications for nutrition programme managers, health promoters, policy makers and researchers in Zambia to reduce the morbidity and mortality as a result of malnutrition. Mothers in Chipata compound were aware and had knowledge about malnutrition. This can be attributed to the health education offered at the health facility and their experiences in the community. The finding is consistent with studies conducted in other developing countries

(Saito, *et. al.*, 1997, Abubakar, *et. al.*, 2011). Although malnutrition was considered as a common occurrence in childhood, mothers believed that it was a dangerous disease which could kill, but was curable if it was treated early. This knowledge forms a good basis for preventing malnutrition. Increasing nutrition knowledge and practices is recommended by the World Health Organization (2007).

Early identification of symptoms of malnutrition is important as it is a determinant of timely care seeking. Although the participants identified the symptoms of Kwashiokor and Marasmus, early symptoms were confused with other common childhood diseases and conditions. Most of the signs and symptoms identified were those in advanced stage of the disease, equally some of the vernacular names for malnutrition which were identified by mothers pointed to symptoms in the advanced stage. Similar findings have been reported by others (Appoh, 1999, Mull, 1991, Nichter, 1985, Ojofeitimi, 1982, Saito, 1997,). Late identification of symptoms in most cases leads to delay in diagnosis and treatment. This could explain the high number of severely malnourished children who are treated at Chipata Health Centre (MOH, 2012). Interventions to strengthen health education should also seek to promote early care seeking for common childhood conditions and to improve referral systems from the community to the health centre. The finding that malnutrition was confused with HIV and AIDs has been reported previously (Khunga, H. et al., 2014) and it is not surprising due to the high incidence of HIV in Zambia, estimated to be 13.3 percent (CSO et al., 2013). Educating mothers about the vulnerability of HIV positive children to malnutrition and other diseases including promoting early- care seeking, HIV testing, and Early Infant Diagnosis and treatment should be strengthened at under five clinics and in the community.

It is equally important to understand what mothers believe to be the cause of malnutrition because it also determines health care seeking behaviour. Although hunger, lack of food, illness and improper feeding were regarded as major causes of malnutrition, other biomedical, cultural, spiritual and social economic explanations were given. This finding is supported by research conducted in other countries (Fornaroff, 1975; Ojofeitimmi, 1982; Nichter, 1985; Sivaramakhrishnan and Patel, 1993; Mull, 1991, Appoh, 1999; Abubakar, et al., 2011). Some cultural beliefs led to delays in care seeking as mothers spent time consulting traditional health systems and healers. Health education interventions stand a good chance of success if deliberate efforts are made to understand and address harmful beliefs and to address misconceptions and myths. Although the causes which were identified in all

the groups were in line with the UNICEF model (1998), participants in all the groups did not mention poor sanitation and poor hygiene practices. Considering the poor sanitation in Chipata compound, health education should reinforce the importance of hygiene practices. Poverty, alcoholism and working mothers and inexperienced carers point to a need for multidisciplinary actions to address malnutrition. Deliberate efforts to address the needs of the most vulnerable families could help solve problems of access to health care services. food and other social services. Although it is known that malnutrition is rooted in poverty (WHO, 2010), this study did not however attempt to find out the association between malnutrition, poverty and health behaviours, however, such local level evaluations are needed.

Poor feeding and care practices came out strongly in all the groups as a cause of malnutrition. Health educators should particularly address inadequate breastfeeding, early cessation of breastfeeding by HIV positive mothers, giving food which is not nutritionally adequate and unsafe, inadequate feeding times, and incorrect complementary feeding practices. This finding is consistent with results from the Zambia Demographic and Health Survey 2013 (CSO et al., 2014) which shows that feeding practices are below the International Young Child Feeding standards. It also corresponds with estimates by WHO and UNICEF (2003) that globally, over two thirds of the deaths as a result of malnutrition are associated with inappropriate care and feeding practices. Education interventions should therefore not only give correct information on infant and young child feeding but also build skills of mothers in food preparation. Further, research should evaluate the effectiveness of health and nutrition education provided at the health facilities and investigate the association between the mothers' nutrition knowledge and the nutritional status of children.

The reported use of traditional medicine raises concerns. A study by Appoh (1980) showed how the use of traditional therapies to treat kwashiorkor led to further nutritional distress because they were ineffective. Since participants believed that the Ready to Use Therapeutic Food (RUTF) is effective in treating malnutrition, there is need to increase awareness and to strengthen efforts to promote its use in the community. Education mothers about the dangers of malnutrition, its causes, means of treatment and prevention and to promote early care seeking.

Social stigma creates a sense of guilt and shame and is one of the reasons for delayed care seeking. The existence of stigma among the health workers worsens the fear to access health care services. Puoane, *et al.*, (2006) recommended that health worker's attitudes should be changed. A study conducted in Kenya by Bliss, J.R. *et al.* (2016) found that stigma was an under reported barrier to treatment for severe malnutrition. Community sensitisation could help in reducing stigma and ensuring early diagnosis and treatment.

#### Credibility of the findings

Measures were put in place to ensure that the results obtained were truthful and credible. The FGDs were audio recorded in order to maintain the original accounts of the participants rendering results believable and credible. The analysis method framework is a rigorous method because its analytic hierarchy involves constant revision of the original and synthesized data (Spencer, et al., 2003). This process makes the findings to be compatible with the perceptions of people under study (Lincoln and Guba, 1985). The research setting and population were appropriate because malnutrition is a serious problem in the catchment area for Chipata Health Centre. Although the focus group discussion was the primary mode of data collection for this study. triangulation with other methods such personal interviews of mothers could have increased the validity the of the results.

### CONCLUSIONS

This study has revealed that mothers from Chipata compound are aware and knowledgeable about malnutrition. The convergence of biomedical, socio economic and cultural explanatory models concerning causation, prevention and treatment points to a need to take into account the perspective of the mother when designing health education interventions. Understanding the cultural beliefs existing in the community is critical because they determine the care seeking patterns. Strengthening health education at the health facility and in the community setting for different target groups to increase the understanding and improve identification of symptoms of malnutrition, diagnosis and treatment are critical actions which can help to reduce the numbers of severely malnourished children who are seen at Chipata health centre. Improved referral systems from the community are equally important in removing delays in treatment. However, taking into account the multiple socio and economic determinants of malnutrition, the broader strategy to the problem should be multidisciplinary in nature while taking particular effort to address the needs of the most vulnerable in the community. Special attention should also be paid to promoting proper feeding and hygiene practices by providing relevant knowledge and skills. The social stigma attached to malnutrition remains an under

reported barrier to care seeking by mothers and should be addressed by sensitising the community and by changing attitudes of health workers.

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# **APPENDIX 3**

MOTHERS' PERCEPTIONS OF PROTEIN-ENERGY MALNUTRITION IN CHILDREN UNDER FIVE YEARS: AN EXPLORATORY AND DESCRIPTIVE QUALITATIVE STUDY CONDUCTED AT CHIPATA HEALTH CENTRE, CHIPATA COMPOUND, IN LUSAKA

# GUIDE FOR FOCUS GROUP DISCUSSION

# PART 1

**Questions Relating to objective 1:** To explore the mothers' lay knowledge, understanding and beliefs about causes, symptoms, diagnosis, prevention and treatment of Protein Energy Malnutrition.

1. The children in these two pictures do not look healthy, they seem to be suffering from a disease. (Show two pictures or posters of a child one with Kwashiokor and another with Marasmus). Do you know what disease this could be?

2. What are the other names of the diseases you know? Tell me some names given to the disease in your local language also. (Probe for different names given to the conditions)

3. What are the major signs and symptoms of the diseases? (probe on the different signs by which they are able to identify the disease)

4. Could you tell me how a child can develop this disease? (Probe on beliefs about the causes of the disease)

5. Is this disease preventable? If so what are the ways in which we can prevent it?

6. If a child developed the disease, what do you think is the right treatment to give to the child?

#### PART 2

# Questions Relating to objective 2: To investigate the mothers' attitudes towards PEM and children who are affected by the disease.

1. Is it normal for a child to suffer from this disease?

2. Do you think that this is a very serious disease? (Probe)

3. Do you believe that this disease is curable?

4. Do you have an idea of how long it would take to cure this disease?

5. How do you feel about a child who has this disease (**Probe**)

6. What do you think about a child with this disease?

7. How would you care for a child with symptoms of this disease? (probe for experiences)

#### PART 3

Questions Relating to objective 3: To investigate the health-care-seeking attitudes and practices of mothers in relation to Protein Energy Malnutrition.

1. If a child started developing symptoms of the disease, what would you do?

Where would you seek help? (Ask about experiences, ask why?

# ZOONERAKO MUKUKAMBISANA MUMANGURU

# CIGAWO CHO YAMBA [1]

Mafunso wotionesa za mutu woyamba 1; kuonjezera zeru kwa azimai ndi kuvertsetsa ndiponso zokhulupirira paka bweredwe, zionekedwe, kupimiwa, kutetezedwa ndi thandizo ya matenda katupa kapena kuti [Protein-Energy Malnutrition.

1. Ana pa dzithunzi thunzi idzi ziwiri salikuyanganika bwino kapena mwathanzi, ali kuoneka monga odwala matenda . [Langizani zithunzi-thunzi ziwiri kapena chimodzi chamwana wa matenda wa kwashoka cinanso chamwana wa marasmusi]. Kodi mudziwa matenda awa mwamene anga khalile?

2. Kodi ndi dzina bwanji ya matenda ena omwe mudziwa? Ndiuzeni ine madzina ena a matenda omwe mudziwa muzirakhuro zanu. [Kusiyana kwa maina ndi paseni maonekedwe ake].

3. Kodi ndi ciani cheni-cheni chomwe mudziwira ndi dzidzindikilo zake zamtenda? [kufunsa pa kusiyana kwa kaonekedwe zamene zikwanitsidwa kuonekera kumatenda]

4. Kodi ndi chotheka kundiuza ine momwe mwana anga pitire patsogolo ndi matenda awa? [Chamene munga dziwire ndi chozetsa matenda].

5. Kodi matenda awa anga tetezendwe? Ngati anga tetezedwe ndi njira yabwanji yomwe munga tetezere kapena kuphewa?

6. Ngati mwana akupitabe patsogolo ndi matenda,munganiza ciani chomwe munga patse kapena kupereka ku mwana?

# **CIGAWO CA CIWIRI [2]**

Mafunso wotionetsa zam mutu wa ciwiri; kufufuza kwa azimai pazikhalidwe zao pali PEM ndiana amene ali ovutikira ndi matendawa.

1. Kodi cili cabwino ana kuvutika ndi matendawa?

2. Kodi muganiza kuti matenda wa ali ovuta kwambiri? [kufusisitsa]

3. Kodi mukhulupirira kuti matenda wa apora?

4. Kodi muliko ndi zeru pamwamene matenda wa anga khalile kuti munthu achile

5. Kodi munga verebwanj kuli mwana amene ali ndi matenda wa? [kufusisitsa]

6. Kodi munganizapo ciani pali mwana wamene ali ndimatenda?

7. Kodi munga munthandi bwanji mwana ali ndi zisonyezo za matenda? [kufusisitsa mukutengako zeru]

### **CIGAWO CITATU [3]**

Mafunso woyenera kuli mutu citatu 3; Kufufuza kwaothandiza pakakhalidwe ndi kayesedwe ka azimai kupitira mu katupa [Protein-Energy Malnutrition.

1. Ngati mwana ayamba zisonyezo za matenda, mungacite bwanji?

2. Kodi ndikuti kwamene muzapeza thandizo? [kodi mudziwako zabwanji, ndipo cifukwa].