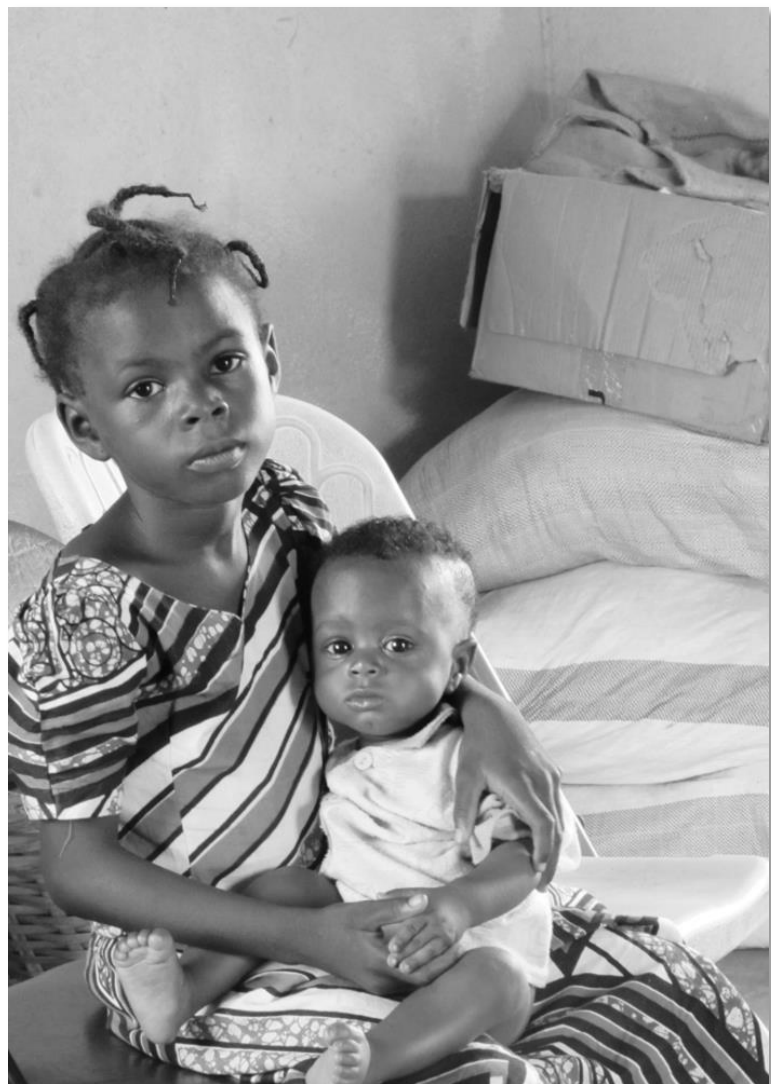


‘IF GOD LIKES THE CHILD’

A qualitative research on beliefs, perceptions and attitudes
regarding childhood malnutrition in rural Ghana

- Eva Aalbers, June 2015



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Preface

One of the challenges of working as a Nutritionist in rural Africa is the high prevalence rate of malnutrition. But, as this study shows, treating and preventing malnutrition is more than just providing the people with the right food. Performing this study gave me, and hopefully you as the reader as well, a better view of the complexity of malnutrition. For me, working on this research was a most eye-opening, exciting and at the same time challenging experience.

This research was performed as the final project to obtain my HBO-bachelor degree in Nutrition at The Hague University of Applied Science. I am very thankful that I was able to perform this project at Project Share, since this is the place where I developed my interest in (medical) anthropology.

I am very thankful towards Nelleke and Rahman, Gladys, Latifa, Emelia and Bintu, who all encouraged and supported me. Rachel, thank you for your support, and I almost cannot wait for the cake that you are going to bake me because I finished this report.

Kabir, Assana, Zacharai and Alhassan: you are 'only' four of the many children who have moved my heart. I hope your future will bright and blessed!

Abstract

Introduction. Malnutrition is a persistent problem in Ghana, with high rates of underweight children, stunting and wasting. One of the NGOs that is trying to turn this situation around is Project Share. Through their nutrition centre, they have already rehabilitated over 300 children since 2009. They are undertaking several educational activities like in-facility education, outreaches and food demonstrations. Built on five years of experience, the supposition rises that beliefs, attitudes and perceptions of the Dagomba women (their main target group) are a major influence on the high prevalence rate. Several practical examples and literature studies show a correlation between a person's belief system and food intake.

Aim. The organisation wants to know how the beliefs, attitudes and perceptions could be addressed in their educational activities, in a respectful but effective way.

Method. A total of six group discussions have been held in three different villages with both mothers and grandmothers. Furthermore, four in-depth interviews have been held with a mother, a nutritionist and some traditional healers. To get additional information on possible educational approaches, a literature review was performed.

Results. The perception of God's will and plans seemed to have a large impact on perceived causes and treatment outcomes. This, together with a focus mainly on treatment, led to a certain ignorance towards prevention. In some cases this also led to patients seeking help (too) late or not at all. The two main treatment options were the traditional healers and the modern medicine, which were both seen as valuable and equally important, and would both be tried to find the most successful treatment. Food taboos were not highly extensive or strongly upheld, but personal preference or tolerance seemed to be the guide. The perceived poverty was very high, which, among others, led to a low perceived self-efficacy. The nutrition centre is viewed as a place with experts with means beyond the reach of local people.. Literature showed that it is important to talk about perceptions and beliefs in a constructive, positive, encouraging and empowering way. Several approaches were found that could be useful in addressing beliefs, attitudes and perceptions.

Conclusion. The strong influence of world view and perceptions of God should not be ignored or condemned. Opportunities should be created to discuss beliefs and perceptions. Positive experiences should both be created and used as examples, and mothers of successfully rehabilitated children should be encouraged to share their experience and knowledge with the family and community. The PD/Hearth method could, with some adjustments and additions, form a good foundation to build the educational programmes on.

Implementation. Further (quantitative) research is recommended, supported by case-studies and follow up. A KAP-questionnaire could be used, together with 'positive deviance inquiries' and 'trials of improved practice' to get more insight into the distribution of beliefs and practices. In the education, a questionnaire could be used to open the discussion and the perceived poverty could be addressed by involving the women in a solution-seeking approach. An 'ambassadors'-system could be set up by making use of powerful example stories and pictures.

Samenvatting

Aanleiding. De prevalentie van ondervoeding onder kinderen is erg hoog, ook in Ghana. Een van de organisaties dit een halt probeert toe te roepen is 'Project Share'. In 2009 hebben zij een voedingscentrum opgericht, waar inmiddels al ruim 300 kinderen succesvol zijn gerehabiliteerd. Project Share organiseert verschillende voorlichtingsactiviteiten, waaronder lessenseries in het voedingscentrum zelf, outreaches en kookdemonstraties. De organisatie vermoedt dat traditionele overtuigingen en percepties een rol spelen bij het ontstaan en in stand houden van ondervoeding. Dit blijkt ook uit verschillende praktijkvoorbeelden en onderzoeken.

Doel. Project Share wil weten hoe ze in hun voorlichting respectvol en effectief op de traditionele overtuigingen en percepties in kunnen spelen.

Methode Er hebben in totaal zes groepsdiscussies plaatsgevonden in drie verschillende dorpjes, met zowel moeders als oma's. Daarnaast zijn er vier interviews gehouden: met een moeder, de diëtiste en een aantal traditionele genezers. Om meer te weten te komen over mogelijke lesmethoden heeft er ook literatuurstudie plaatsgevonden.

Resultaten. De perceptie van Gods wil en beschikking bleken een grote invloed te hebben op de percepties met betrekking tot de oorzaak en behandeling van ondervoeding. Samen met een focus op voornamelijk behandeling in plaats van preventie, leidde dit tot een zekere mate van onwetendheid en onverschilligheid tegenover preventieve maatregelen en vertraging in het zoeken van medische hulp. Zowel de traditionele genezer als ook de medisch-wetenschappelijke gezondheidszorg werden gezien als geschikte opties. De beslissing voor een van deze twee zorgverleners werd vooral genomen door uit te proberen. De studie leverde niet veel voeding-gerelateerde taboes op, maar de keuze voor bepaalde voedingsmiddelen werd voornamelijk gebaseerd op persoonlijke voorkeur. De deelnemers hadden de perceptie dat armoede een grote barrière vormde, en dat het voedingscentrum over –voor hen- onbereikbare middelen en kennis beschikt, waardoor het vertrouwen in zelf-kunnen laag was. Volgens de geraadpleegde literatuur is het belangrijk om de overtuigingen en percepties bespreekbaar te maken, op een constructieve en positief-aanmoedigende manier. Er zijn verschillende methoden beschreven die gebruikt kunnen worden om deze percepties en overtuigingen te benaderen.

Conclusie. De aanwezigheid van een sterk geloof in God en zijn wil kunnen niet buiten beschouwing gelaten worden. Overtuigingen en percepties moeten bespreekbaar gemaakt worden, en positieve ervaringen met zowel behandeling als preventie zouden gecreëerd en gebruikt moeten worden in de voorlichting. Moeders zouden aangemoedigd moeten worden om hun ervaring en opgedane kennis te delen met hun omgeving. De 'PD/Hearth' methode zou, met een paar aanpassingen en aanvullingen, een bruikbare methode kunnen zijn in deze setting.

Implementatie. Meer kwantitatief onderzoek is nodig om meer inzicht te krijgen in de distributie van percepties en overtuigingen. Daarvoor zou gebruik gemaakt kunnen worden van een zogenaamde 'KAP-vragenlijst', in combinatie met onderzoek naar positieve uitzonderingsgevallen en het uittesten van voorgestelde veranderingen. In de voorlichting kan er gebruik worden gemaakt van een vragenlijst om het gesprek over overtuigingen en percepties te openen. De ervaren armoede-barrière kan benaderd worden door de vrouwen te betrekken in het zoeken naar oplossingen. Een 'ambassadeurs-systeem' kan een goede manier zijn om meer bekendheid te creëren door middel van foto's en waargebeurde verhalen.

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1. INTRODUCTION

This study is one of many attempts to enhance the fight against childhood malnutrition. Yearly about 2.3 million children die with malnutrition as the underlying cause. But the burden of childhood malnutrition doesn't stop there. Even after surviving childhood malnutrition, the child, the family and the community suffer from the (long term) consequences (Save the Children, 2013). When this malnutrition occurs in the first 1000 days of a child's life - from the start of a woman's pregnancy until her child's second birthday- it has a damaging effect on the child's brain and body. (Save the Children, 2013). When the malnutrition occurs after the child's second birthday, the consequences are often irreversible (Horton, 2008). These consequences go far beyond only stunted physical growth. A malnourished child misses out on cognitive development, is more susceptible to infections and viruses, and also misses a great deal of the opportunities a healthy child gets: education, socio-emotional stimulus, interaction with the environment and parental affection (Save the Children, 2013). This results in, among others, lower school performances (Aubery, 2012), a lower IQ , a bigger risk of behavioural problems (Martorell, 1999), limited job prospects and a lower economic status (Save the Children, 2013).

The Northern Region of Ghana is one of the places where malnutrition is a persistent problem. 29.3 percent of the children under five are underweight, 35.2 percent are stunted, and 10.6 percent are wasted (Botwe, 2008), though these figure surely overlap. Although accurate up-to-date data is not available, figures from the Gushegu District Hospital, presented at the 2015 Annual Performance Review (Gushegu District, 2015) seemed to indicate that the prevalence rate is not going down drastically, despite all the effort that has been made in the past 6 years(FANTA, 2014).

1.1 Project Share – problem statement

One of the organisations participating in the fight against malnutrition is Project Share. In 2009 this NGO founded 'Neesim Nutrition Centre', which aims to reduce the prevalence rate of malnutrition in children under five to below 5% (Neesim Nutrition Centre, 2012) . Since 2009, more than 300 children have been successfully rehabilitated through receiving the right diet and medical care (Neesim Nutrition Centre, 2015). Whilst the side-effects and complications of malnutrition require medical treatment, and supplemental feeding needs to be given for recovery and catch-up growth (WHO, 1991), malnutrition itself could be prevented by consuming a healthy, safe and balanced diet (Action Against Hunger, 2009).

With this in mind, Project Share undertakes a wide range of educational activities, such as in-facility health education, outreaches and food demonstrations. Although Neesim Nutrition Centre has already reached and taught a lot of people, the problem of malnutrition is still far from being solved. One of the factors that, according to the organisation, might be the reason for the absence of success, is the impression that the local belief systems and cultural food habits have a large impact on the nutritional status of the children. Traditional beliefs and cultural practices are not necessarily harmful, but Project Share presumes that some of these traditional beliefs might interfere with their treatment and prevention of malnutrition. The following examples demonstrate this supposition:

- One of the local translations used for 'malnutrition' is 'alizini', which means 'spirit' (Blench, 2004)

- Almost 15 % of deaths in infants under three months in Ghana are a result of infanticide because these children are believed to be a 'spiritual child' (Allotey & Reidpath, 2001) even though the reason for their 'unusual appearance' is often severe acute malnutrition (Denham, Adongo, Freydborg & Hodgson, 2010)
- There are several taboos on food items, for example on eggs and meat which are believed to turn a child into a thief by developing an expensive taste, and are therefore not given to young children (Ogunjuyigbe & Ojofetimi 2006)
- The belief that the occurrence of malnutrition is 'fate, a decision by God' prevents women from passing on healthy food habits to her other children and household members (Aalbers, 2015)

The article '*Behavior change interventions and child nutritional status*' (Infant and Young Child Nutrition Project, 2011) states that nutritional interventions failed in the past because they did not consider (enough) the role of the cultural context. If we look at the Health Belief Model (Morris, Marzano, Dandy, & O'Brien, 2012), we see how – according to this theory- a person's behaviour is driven by his beliefs and perceptions. According to the Theory of Planned Behaviour (Morris et.al., 2012) another often used model, a predictor for a person's behaviour is his intention. His intention, in its turn, is determined by behavioural, normative and control beliefs. Therefore, it is crucial to address these beliefs in the educational activities. Project Share would like to adjust its education to the cultural context as well as possible. Therefore, they want to get a better view of the beliefs, attitudes and perceptions among their target group. They also want to know what approaches could be used to address these beliefs and attitudes during the educational activities.

1.2 Aim and objectives

The aim of this study is to give Project Share guidelines and ideas to adjust their educational activities to the local cultural setting. Therefore, the objectives of this study are:

- To explore the traditional beliefs, perceptions and attitudes related to malnutrition among Dagomba women in the Gushegu district.
- To determine if and how these beliefs, perceptions and attitudes influence the development, treatment and prevention of malnutrition.
- To research how these beliefs, perceptions and attitudes could be addressed in educational activities carried out by Neesim Nutrition Centre.

The recommendations at the end of this report serve as a practical guide to adjust the educational activities in such a way that the traditional systems are approached respectfully and constructively.

The **central question** that will be addressed in this research is:

How could Project Share address the traditional beliefs, perceptions and attitudes of Dagombas during educational activities related to malnutrition, so that it will support the modern-medicine based treatment and prevention of malnutrition?

The following sub-questions are formulated:

1. What are the traditional beliefs, perceptions and attitudes related to malnutrition among Dagombas?
2. What are the expected effects of these traditional beliefs on the prevention and treatment of malnutrition?

3. What are useful methods and approaches to successfully combine traditional beliefs with modern medicine?

1.3 Relevance

This study is intended to provide advice regarding adjustments to the educational activities carried out by Neesim Nutrition Centre, based on both theoretical and practical evidence. However, the outcome of this research might also be interesting for health educators and promoters working in either different (health-related) fields of study, different geographical areas or among different ethnic groups with similar health belief systems and traditions.

Besides that, this study will give practical applications on how to detect and anticipate traditional beliefs while working with a modern-medicine based programme. Even though this study does not focus on the biomedical aspect of nutrition, it is relevant for the development of the nutritional profession. Evidence based guidelines and manuals on the treatment of malnutrition are already available, but as a nutritionist it is important to look beyond medical treatment guidelines by taking into account the cultural background of your client or target group. Intercultural knowledge and skills are essential when working in a developing country or in a multicultural developed country.

Another added value of this study is that the beliefs, perceptions and attitudes related to malnutrition in this particular area have never before been reported. Moreover, this study also provides the reader with tips for the practical implementation.

2. THEORETICAL BACKGROUND

2.1 The setting

Gushegu, the hometown of Project Share and Neesim Nutrition Centre, is a small town located in the Northern Region of Ghana. It is also the capital of the Gushegu district, one out of the 26 districts in Ghana. The district has 112,826 inhabitants, distributed over 395 communities. Although Ghana is one of the fastest developing countries in Africa, the Northern Region is relatively poor and underdeveloped. The main economic activities are agriculture, hunting and forestry. The average annual income is 296 Ghana Cedis (1 Ghana Cedi is approximately €0.22) per capita, and 1452 Ghana Cedis per household, while the average expenditure is 362 Ghana Cedis per capita, and 1529 Ghana Cedis per household. 65.2 percent of this money is spent on food. The average household size is 10 persons. The Dagombas are the largest ethnic group in the region. A small majority of the population are Muslims (56.2 %). 21.3% of the population is adherent of traditional religions and 19.3 % is Christian (Ghana Statistical Service, 2013 ; Gushegu District Assembly, 2013).

The Northern Region has one rainy season from approximately May to October, a dry season from November to April, and one harvest season, from July till September. Research (Harding, 2008) shows that the pre-harvesting season has a big impact on the nutritional status, since there is less (fresh) food available or affordable in the period right before the harvest. In the period between April and June the number of households that report a food shortage even rises to almost two-thirds (Marquis, Harding, Colecraft, Fox, and Sakyi-Dawson, 2007).

The main food sources of energy are yam, maize, rice, beans and millet. The diet is usually very monotonous, with TZ (a porridge made out of cornflower) being the most consumed dish, especially among the poorer people. Other often consumed dishes are Banku, Fufu and Kenke. These are all high in carbohydrates and are often served with a (watery) stew or soup. Animal-source foods are rarely consumed, and often in small serving sizes. Usually, meat is reserved for the older family members, and is only occasionally served to children. (Armar-Klemesu, Rikimaru, Kennedy, Harrison, Kido, and Takyi, 1995). The introduction of this study already showed the high prevalence rate of malnutrition. The high number of stunted children in particular highlights a chronic nutrient deficit. A study (Takyi, 1999) conducted among preschool children in the Northern part of Ghana showed that only about a quarter of the children (26.5%) meets RDA values. A large number of children are anaemic (92%) and 16.3 % of children have a level of vitamin A below 10 micrograms/dL. The intakes of calcium, vitamin C and vitamin A are also below RDA. The high prevalence rate of anaemia is due to a high malaria rate, hookworm infestations, a low bioavailability of iron and a low intake of vitamin C, whereas the intake of iron was adequate. Exclusive breastfeeding for the first six months of a child's life is recommended because of the many health advantages (World Health Organization, 1991). In Ghana, the average length of exclusive breastfeeding is 4 months, and only 63% of the children are actually exclusively breastfed for six months (Ghana Statistical Service, 2009), however accurate data on the northern region is not available. Malaria, diarrhoea and acute respiratory infection are among the major health issues of children in the Northern Region.

2.2 Treatment and prevention of malnutrition

Malnutrition (in the form of Protein-Energy-Malnutrition) can be divided into two different types: kwashiorkor (wet malnutrition) and marasmus (dry malnutrition). The identifying mark of marasmus is severe emaciation, while kwashiorkor manifests itself through bilateral pitting oedema. The shortage in energy and protein can be replenished by consuming an adequate diet. But most of the children suffer from additional symptoms like infections, hypothermia, hypoglycaemia, anaemia, skin infections, dehydration and worms, for which attentive care is needed.

Neesim Nutrition Centre offers inpatient care: the patient stays in the facility for approximately 6 to 8 weeks and can therefore be monitored 24/7. The nutrition centre uses a WHO manual (World Health Organization, 1991) for the treatment. The children are supplied with self-produced F-75¹, F-100² and the RUTF Plumpynut®. At the same time, both the child and the mother are counselled and monitored when the child switches to normal food. During the treatment phase, the mothers are educated by using the self-written handbook 'Education programme on nutrition, health and child care' (Project Share, 2009). With this method, several health- and food-related topics like food groups, hygiene, childhood illnesses, raising children and making wise choices are discussed. The educational activities carried out by the nutrition centre focus on the following key points:

- The signs, causes and consequences of childhood malnutrition;
- Knowledge of the three food groups (energy, protection and building foods) – with a large emphasis of the consumption of more meat, fish, fruits, vegetables, beans and Moringa³;
- Skills in preparing healthy and balanced meals;
- Why and how to keep yourself and your surroundings clean; and
- The benefits of exclusive breastfeeding in the first six months, and the best way to wean your child.

2.3 The causes of malnutrition - beliefs, perceptions and attitudes

Onyesom, Onyesom, Ofili, Anyanwu and Uzuegbu (2008) state that, next to improvement in socioeconomic status and literacy level, rural people should be educated on the '*...dangers of strongly upholding beliefs and superstitions that deny children of adequate nutrient supply*'.(p. 53) The eight studies described below point out how relevant (and often underestimated) the role of attitudes, beliefs and perceptions of individuals are in the education and prevention of malnutrition. Ogunjuyigbe and Ojofetimi (2006) examined the influence of cultural feeding practices on a child's nutritional status. They concluded that, as a result of traditional beliefs and cultural food practices, some healthy and locally available foods were not being consumed, which resulted in poor nutritional status. A study performed by Wei (2013) shows the positive effects of dietary beliefs, feeding attitudes and practices on a child's nutritional status. In this study, the participants (Chinese mothers) showed strong traditional beliefs, misconceptions and a lack of concern for the child's health, all driven by their cultural background. These factors lowered the child's nutritional status, and the study urgently recommends these beliefs and perceptions are addressed in nutritional interventions. Ojofetimi (1982) states that in the planning and execution of nutritional interventions, the perceptions of the mothers are too often neglected, while these seem to have a significant influence on the success of the programmes. He found, for instance, that the terms used by mothers to describe malnutrition reveals their perception of the disease, which often turned out to be of the spiritual kind. Keeble and Keeble (2006) found that in the Lower Jimmy Valley, restriction of certain food items, late weaning of infants, infrequency of feeding and the low priority given to children during meal times were the four most significant practices that related to malnutrition. These are all practices that are culturally determined and driven by (traditional) beliefs. Mull (1991) interviewed 150 Pakistani mothers to explore their perception of marasmus. Only three out of the 150 mothers mentioned diarrhoea and/or a lack of food as a direct cause of malnutrition. The causes of malnutrition they mentioned were mainly spiritual or supernatural. In addition, traditional (religious) therapy was seen as more applicable than nutritional or medical interventions. Saito, Korzenik, Jekel and Bhattacharji (1997) found with their case-control study that mothers in rural South India did

¹ Formula diet with 75 kcal/100 ml (WHO, 1991)

² Formula diet with 100kcal/100 ml (WHO,1991)

³ Moringa oleifera, a highly nutritious tree, of which the leaves and seeds are an almost free source of proteins and minerals

not see medical care as an appropriate intervention for malnutrition. This perception was based on their traditional beliefs and prevented them from seeking medical care. Boatil, Guure and Ayoung (2014) imply with their study that traditional beliefs can be seen as one of the reasons why the prevalence rate of malnutrition is still so high. The authors state that these beliefs play an important role and should get more attention when setting up (educational) interventions. They urge community by community investigation of the local beliefs and practices in order to address malnutrition. This recommendation is supported by Abubakar, Holding, Mwangome and Maitland (2011). After researching the maternal perceptions of causes of malnutrition in rural Africa they suggest a multidisciplinary approach, which should be based on individual and local needs, concerns, attitudes and beliefs.

2.4 Ghana's pluralistic medical system

The influence culture has on health perceptions, beliefs and behaviour is a subject mainly studied by medical anthropologists and medical sociologists. The first qualified medical sociologist in Ghana was P.A. Twumasi. In his book *'Medical Systems in Ghana'* (1975) he explains the medical landscape of Ghana, with on one hand the traditional, indigenous medicine and on the other hand the emergent modern, scientific medicine. The nutrition centre target group is made up of mainly Dagomba women and children, a tribe living in the northern part of Ghana. In this area, traditional healing, magic and spiritual powers are very common. About 80 percent of the population of Ghana would use traditional medicine (Tabi & Hodnicki, 2006) and the World Health Organization (World Health Organization, 2001) states that *'about 70% of the population depend exclusively on traditional medicine for their health care'* (p. 16) and that *'there is approximately one traditional medicine practitioner for every 400 people, compared to one allopathic doctor for every 12 000 people'* (p. 16). Indigenous health workers like traditional birth attendants and traditional healers have a significant influence due to their traditionally respected position (Aubel, 2006; Hoff, 1992). Also, for a large part of the population traditional healers are more affordable and accessible than modern medicine (Tabi & Hodnicki, 2006). And according to Haverkort, Hooft and Hiemstra (2013) *'...traditional values, knowledge, concepts and practices, still play an important role in the decision making processes of rural people in many parts of the world'*, (p. 8) a statement that is supported by Millar, Apusigah and Boonzaaijer (2008). Christian Gaba (1995) outlines in his article *'Malnutrition and child health care in Africa – religions responsibility'* the role religion plays in the food practices and health care systems. He explains how divine guidance, sacred activities and personal horoscopes result in dietary pro- and prescriptions. He also states that *'medical care in traditional Africa is essentially a religious activity.'* The existence of a pluralistic medical system in itself does not have to be harmful, and one has to be careful to not negatively address or disregard these traditional systems. The WHO states in its *'WHO traditional medicine strategy 2014-2023'* (2013), that traditional medicine is an *'important and often underestimated part of health services'* (p. 11). Emeagwali and Sefa Dei (2014) even state that Ghana is too obsessed with modern medicine and should focus more on the richness of their traditional knowledge.

3. METHOD

This cross-cultural, qualitative research was performed from January till June 2015. The research mainly took place in the Gushegu District in the Northern Region of Ghana, except for part of the literature research, which was done throughout Ghana and in the Netherlands. For this mixed-method the following three different research-methods were used:

3.1 Literature research

Literature research was performed to get deeper insight into and underpin the problem statement, as preparation for the interviews and focus group discussions and to find information to answer the third sub-question. Information was collected from the online databases SurroundHealth, PubMed, ScienceDirect, ResearchGate, NCBI and the following libraries:

- Library of the Tamale Institute for Cross Cultural Studies (TICCS)
- Library of the University of Ghana in Legon, Accra
- Northern Regional Library in Tamale
- African Studies Centre Library in Leiden, The Netherlands
- Library of The Hague University of Applied Science, The Netherlands

Literature was selected by using combinations of the following key words 'traditional beliefs', 'perceptions', 'food taboos', 'traditional medicine', 'cultural customs', 'indigenous knowledge', 'belief systems', '(mal)nutrition', 'nutritional status', 'Dagomba', 'Gushegu', 'Ghana', 'Northern Region' and 'Africa'. When searching for literature to answer the fourth sub-question, the keywords were combined with the terms 'health education', 'behaviour change communication' and/or 'approaches'. Other key words that have been used are 'intercultural communication', 'focus groups discussion' and 'ethnographic research'.

Considering the subject (longstanding traditions) and the expectation of a low number of useful resources, there was no restriction, neither in level of evidence, nor in date. Nonetheless, recent studies/resources with a high level of evidence were preferred and given more regard. Only resources written in English or Dutch have been used. The collected literature has been read and useful information was selected and used for one of the three above-mentioned purposes.

3.2 Focus group discussions

A total of 6 group discussions were held to get a complete picture of:

- The perceptions and beliefs about the cause and the treatment of malnutrition
- The attitude towards traditional healing and modern medicine
- Taboos and food prescriptions, especially concerning:
 - o Pregnant women
 - o Lactating women
 - o Breastfed children
 - o Young children (under five)
 - o Sick children

An explanation for the use of focus group discussions in this cross-cultural setting can be found in attachments 1 and 2.

3.2.1 Participants

Two of the groups were held in Kpana (a small village close to Gushegu), two groups were held in Lalegu (also close to Gushegu) and two of the groups were held in Kpatinga (a large village about an hour away from Gushegu). These villages were chosen because Gushegu is the home-town of the nutrition centre, and a high proportion of patients come from Gushegu

and Kpatinga. Kpatinga is also known for its magic and traditional healing rituals, and it is a village where the women often have difficulties to put the education into practice. In all three villages one group was held with mothers and another group with grandmothers. This distinction was not made to compare the groups but because the women would probably feel freer to speak in a homogeneous group (Wong, 2008).

The participants were selected by the chief of the village. A woman was included if she was born and raised in a Dagomba village, had raised at least two children and was willing to participate and share about her personal beliefs. Women who had already stayed in Neesim Nutrition Centre (or another comparable facility) or who had a qualification in health or medicine were excluded from participation.

Even though the aim was to have a maximum of four participants per group, in practise this turned out to be a bit different:

Kpana: three grandmothers in one group and six to ten mothers in another group, although the groups mixed together for the second half of the discussion.

Lalegu: four grandmothers in one group and four mothers in another group.

Kpatinga: three to seven grandmothers who participated in the group discussion, and an extra eight grandmothers who were sitting in the same room and listened. In the other group five mothers who participated in the group discussion, and an extra twelve mothers who were in the same room, listening or sleeping.

3.2.2 Setting

The local chief was greeted and consulted for a suitable location, which needed to meet the following criteria: Minimal ambient noise, no direct sunlight, enough space for seven people with facilities to sit comfortably and a minimal chance of being interrupted. In Kpana and Lalegu, a small room with an open door was used, whereas in Kpatinga the group discussions were held in the chief's room (which he insisted on), with a lot of space for more people to sit and people walking in and out. The group discussions took around one hour each. The group with grandmothers was always followed by the group with mothers, with a short break in between.

3.2.3 Equipment

The focus group discussions were recorded on a voice-recorder, and notes were taken by pen and paper. During the focus group discussion, several pictures (see attachment 1) were used to provide a starting point for the group discussion. All the equipment was supplied by the researcher.

3.2.4 Discussion guide

The discussed topics can be found in the discussion guide (see attachment 1). Each group started with 4 pictures of malnourished children (either kwashiorkor or marasmus), about which several questions were asked. The questions only served as a guideline, and often the researcher went deeper into the answer by asking more (related) questions, or skipped questions if they did not seem relevant anymore.

3.2.5 Translation

All 6 group discussions were moderated by the researcher, who was assisted by two translators. Observation notes were taken by the moderator, since she had to wait for the translation when the women were talking. Before the focus group discussions, the importance of sentence-by-sentence translation was discussed with the translators (Belfrage & Wigley, 2013), and they were told only to translate, and not to complement or correct the participants' answers.

3.2.6 Transcription and interpretation

The recordings of the group discussion were listened to and translated again by a third translator. The translation was written down by the moderator. Because the group

discussions were typed out in a different language to the one they were held in, the choice was made for a descriptive method, instead of a word-for-word transcription. In this process, noise and irrelevant comments were filtered out and some answers were clustered or summarised. The transcripts were all read through once, after which a list of labels was composed. After that, the transcripts were labelled. Data from the various sessions with the same label were put together, read again and summarised. After that the information was analysed and the results were written out to form an answer to the first sub-question.

3.3 In-depth interviews

To get more specific information, several in-depth interviews were held with the following key-persons:

- A female traditional healer (herbalist) in Gushegu (in local language)
- A male traditional healer, accompanied by his son, in a village in the district (this man wants to stay anonymous) (in local language)
- The nutritionist working in Neesim Nutrition Centre in Gushegu (in English)
- A mother who had previously stayed at the nutrition centre (in local language)

These persons were selected because they represent the three different groups: the target group of the nutrition centre, the traditional healers and the modern-medicine based healers. The traditional healers were selected by asking around in Gushegu where such people could be found, and the nutritionist and the mother were selected because they were known to the researcher. All the interviews were semi-structured. The participants were all interviewed in either their home or work-place. The interviews were held after analysing the focus group discussions, so the questions were based on where more information was needed. In cases where the participant did not speak English, the interviewer was assisted by a translator. The interviews were recorded, and transcribed. The transcription of the interviews was compared with the analysis of the focus group discussion, to see where they could provide supplementary information. In some cases, the information was also used to answer the third sub-question. Some parts of the interviews were not directly used in the results, but served as an extra resource for the researcher to gain a better understanding about certain topics.

3.4 Ensuring the quality of this study

The internal validity was increased by making use of multiple data resources and research methods. The strength of this study is that it approached the topic from different points of view: the target group, the nutritionist and the traditional healers. This 'triangulation' enlarges the internal validity and the objectivity (Netwerk Kwalitatief Onderzoek AMC – UvA ,2002). The interpretations and findings were submitted for feedback to the commissioning organisation, to also increase the validity. Furthermore, the methodology used was evidence-based to enhance the reliability and validity. Making use of more than one translator and getting support from a third translator for the transcription reduced the risk on translation-based bias.

4. RESULTS

4.1 Group discussions and interviews

4.1.1 The role of God

The group discussions showed the important role God plays in the perception of sickness and health. Both the cause of a sickness as well as the outcome of a treatment was often ascribed to God's will. When seeking for treatment, it is God who can tell who would be the right person to send the child to. If treatment does not seem to work, the women would 'give the child to God', and for one picture the women even stated that *'only prayer can save that child'*. An overview of the first responses on every picture and the perceived causes and solution can be found in attachment 4. When talking about the reason why some children get sick and others don't, or why some children are skinnier than others, the responses were: *'It is just how God created everyone'* *'Some people are born thin, and some fat'* *'Everybody is how God created him or her'*. Some of the groups said that malnutrition never occurred in their villages. When asked what the reason could be for this, the response in Kpana was: *'It is just God who protects us from that thing'*. The question of whether a child 'has life or not' influences the type of care the parents would seek. If parents think a child is not supposed to live, or even is not a normal human being, it could prevent them from seeking care. This 'external locus of control' also seems to deter them from taking preventive measures, since it is not they but God who decides whether the child stays healthy or not.

4.1.2 Taking responsibility and good care

However, according so much value to God did not –always- mean that the women would only pray and expect God to do all the work. As one of the women stated: *'You should give it to God but you should also continue the treatment.'* Another woman said *'You first give everything to God, but you also have to take your own responsibility'*. The group discussions also showed that the mothers do see the importance of taking good care. This became clear in two ways: the women mentioned how important it was to take good care of your child (giving enough food, practising good hygiene) and they also pointed to a lack of parental care as possible causes for a child to be sick. This shows that the mothers understand the role they play in the health of their child, and that they also see that they are the ones who need to take responsibility for the child.

4.1.3 Pluralistic medical systems

A much-discussed topic in the group discussions was the kind of help the women would seek for their child. According to the women, the possible options to go to with your sick child are the father or another family member, a soothsayer or diviner, a local healer like a herbalist, the hospital or the nutrition centre. There seemed to be no clear indication on when to choose which type of treatment: this differed per situation, per child and per sickness. All the groups mentioned that you should try one form first, and if you see no improvement, you would try another type. According to most of the groups, both the hospital and the local healer would refer to the other type of care if they feel they cannot treat the sickness (anymore). Although the hospital was regularly mentioned as the best place to go first, the advantages of the local healer were that you could go there in the weekends and in the middle of the night, and that they would often treat for free, whereas in the hospital they could charge for medicine or other requisites.

During the group discussions, the women mentioned some examples of sicknesses that could only be treated by a local healer (like poisoning) or only by the hospital (like anaemia, malaria and oedema). The cause of diseases could also be ascribed to witchcraft, or *'others who do that to you'*. In this case only local treatment would work. Local healing was mentioned as an appropriate option in every group, however the women in Kpatinga were a bit sceptical about it: *'it never worked, it is just luck'*. In Lalegu and Kpatinga the mothers also

saw potential risks of trying home remedies for too long. This was confirmed by the nutritionist, who recognised that some children come to the nutrition centre in a very critical condition because the parents first tried local healing for too long. The women also mentioned that there are local healers who claim to have the powers to heal, but just lie and use it as a way to get money.

4.1.4 Treatment instead of prevention

When talking about the consequences of malnutrition (or sickness in general), the women seemed to be focussing mainly on the short term. *'Every sickness is the same, if your head is itching you and someone is having a sickness like this, you are all sick because you are all suffering from pain'* *'It is always a problem for everybody if a child is sick, not only in Ghana but everywhere'* *'It is a big problem for us because if your child is not well you will not be sleeping in the night'*

The group discussions created a lack of clarity about the women's ideas about the possibility to prevent malnutrition. When asked what could be done to protect their children, the answer was regularly that you should go to the hospital. In Kpatinga, where the women had experience with people from their community who went to the nutrition centre, they did say that they were happy to know a place to go if their child got malnourished, but they did not mention that they had now learned how to prevent it. This ignorance towards prevention also became apparent in the in-depth interview with one mother. She realised that she could refer people once the child already got malnourished, but she did not mention that she could teach other people about healthy foods to prevent malnutrition. The nutritionist also confirmed that the women often only see the treatment, and do not think about the long-term consequences, and therefore do not always take preventive actions. However, some groups did mention hygiene as a way to prevent children from getting sick, and they also recognised the importance of taking good care.

4.1.5 Perceived Self-efficacy

Another strong belief, or actually lack of belief, showed up when talking about whether the women could also implement at home the things which are done in the nutrition centre. The women did not believe (or did not see) that malnutrition is something they could prevent or do something about at home. Although the nutrition centre tries to be a place that resembles the home situation of the women as much as possible, they still looked at the nutrition centre as a place where they do something a woman could not do at home. The main reason for this low self-belief was, according to the women, that only the nutrition centre has the right medicine, right types of food (that the women thought they could not afford at home) and the knowledge to treat the children. When talking to the Nutritionist about this topic, she was quite surprised about it. The women relied on the perceived experts, however they also showed a willingness to learn: *'If you teach us we will practice it'*.

4.1.6 Perceived poverty

In some of the groups, the women claimed to know what kind of foods children should get, but that because of their lack of resources, they could not give them. This perceived lack of money was a barrier that often turned up in all the groups. This has, as the women said, an influence on both the food that they could offer their children and on the kind of help they could seek if the child gets sick. Some quotes to illustrate this 'perceived poverty':

'We are not having so if we give birth you can just give TZ. We know the food that is good but if you lack money TZ is the only food that is abundant'

'It is poverty why we are not eating healthy food'

'Sometimes the child will want to eat but there is no food'

'If you are not having enough money to buy the kind of food the child likes you should use this money to go to the hospital to get medicine so that the child can have appetite again'

'They are afraid to go to the hospital where they could tell them to buy medicine. That's why they would treat it in the local form'

'The people who start early with treatment and go in a rush to hospital, they are the ones who have money. But for our community, we are poor. That is why sickness is always disturbing us'

'If poverty was not in Ghana, we don't think we would have these kind of sicknesses'

When this issue was submitted to the nutritionist, she was very surprised. According to her, the women are never asked to buy things they do not have, but always to make good use of the things they do have. She said that eating a healthy diet within their budget should be possible for everybody in the village, if only they make good use of their resources.

4.1.7 Example based learning

The group discussions revealed that ideas and perceptions were based on former experiences, or experiences shared by relatives. In Kpatinga, both groups knew that (for three of the four pictures) the nutrition centre was the place where they had the cure for this sickness, because children from their village got healed there. Another example shows how one experience shaped the perceptions of one woman concerning the cause of a sickness: *'In the hospital you can see a child who looks exactly like this and they will be giving him blood. So the cause might be that the child doesn't have blood'*. In the interview with the mother alone, she also stated that examples are the best way for other people to learn more about malnutrition and the nutrition centre. This was supported by the nutritionist, who said that using similar stories as examples and 'before and after' pictures would be the best way to convince people to seek help.

4.1.8 Food prescriptions

Food preference seems to play an important role in the decision process. When talking about what food would be good during various life-events, often the answers were related to personal preference. There did not seem to be many 'general rules' about which food should be used or rather avoided. The most important guideline was personal taste and whether you or the child could tolerate the food. This was the case for pregnant and breastfeeding women, growing children and sick children. Food is seen to be 'bad' if it makes you or the child vomit or have diarrhoea. If you know that you eat it and you won't vomit then it is considered to be good.

The women named several events that could result in diverse food restrictions. Sometimes, when consulting a local healer, that person would tell you to not consume certain food items in order to get healed. Furthermore, the women mentioned some foods that should or should not be eaten during important life-events or life-stages:

- Eggs/meat/fish were mentioned in some groups as foods that should not be given to children, because they would turn a child into a thief. The women said at the same time that, if you are sure that you can provide, eggs are good for children.
- In some groups the women said that mango is not good for a pregnant woman. The consequences however differed between the groups (diarrhoea or eczema)
- In Kpana and Lalegu the mothers mentioned that bambara beans would affect the breathing of the child at birth.
- Five of the six groups said that a pregnant or lactating woman should not take cold or chilled foods and drinks, because it would not allow the child to develop well, or it would stop the milk from coming.

The nutritionist acknowledged that there are not many food taboos, and if they are there, they are often only upheld by a small group of people. Although most of the women agreed that it is good for a sick child to be eating, they also experienced that a child does not always have an appetite, which could make it more difficult to feed him or her. There was no consensus over the question of how you should react in these situations. This is illustrated by the following quotes:

- *'Eating is good, if only the child has appetite'*
- *'Yes, it is good if only the vomiting stops and the child is willing to eat, then you should give the child food'*
- *'It is the child who will determine the food that it will like and eat'*
- *'If the child is healthy you just leave it like that. But if he is not healthy you will find means for him to eat.'*
- *'If the child is not well, but still refuses to eat, you just leave him. If he becomes well he will eat again'*

Summary 1 - *What are the traditional beliefs, perceptions and attitudes related to malnutrition among Dagombas?*

Perceptions of God's will and His plans seemed to play a big role in the perceived causes, and could prevent people from seeking medical care (early) if a child is not 'supposed to live'. This strong belief was expressed in a focus on treatment and a certain level of ignorance towards prevention. However, a child's health was surely seen as the parents' responsibility. The pluralistic medical system is self-evident and both the hospital as well as local healers were seen as valuable and equally important options. There was vagueness about which care would be sought first, but they would both be tried out to see what works best and sometimes the health 'professional' would refer if he could not solve the problem. Although there was knowledge about healthy food, poverty was perceived as a major barrier to putting this knowledge into practice. The nutrition centre is viewed as a place with experts and where they have means that are not in reach for the local people. Experience with, or knowledge about the signs of nutrition was a strong indication for medical care-seeking. Although not many food taboos were found, personal preference or tolerance influences the food intake for a great part.

Summary 2 - *What are the expected effects of these traditional beliefs on the prevention and treatment of malnutrition?*

The expected effects of the above-mentioned beliefs, perceptions and attitudes are:

- Late care seeking, which results in critical conditions upon admission
- Lack of care or giving up on a child when he is not believed 'to have life'
- Ignorance concerning prevention and therefore not being motivated to take preventive actions
- Restriction from healthy foods because they are perceived to cause vomiting or running diarrhoea, while these symptoms might have another cause.
- Not trying to compose healthy meals because of perceived poverty
- Not putting knowledge gained at the nutrition centre into practice at home because of perceived lack of means

4.2 Literature review

4.2.1 The role of attitudes, beliefs and perceptions in nutrition education

There are several (hand)books used by health workers and nutritionists when working in a community setting. Some of them also mention the local traditions and beliefs one can come across. The Nutrition Handbook for Community Workers (Caribbean Food Nutrition Institute, 1990) mentions some wrong beliefs about food and says that they should be corrected. The book gives some examples of wrong beliefs, including 'the truth' about these topics, but the book does not give guidance on how to address/correct these beliefs.

The writers of 'Community Nutrition' (Burgess, Bijlsma and Ismael, 2009) advise to study the practices, beliefs and attitudes together with the community members, instead of just telling them what to do or change. They state that behavioural change is the main concern of the community worker, and they suggest keeping the targeted behavioural changes small and easy. The book does not explicitly give suggestions on how to address beliefs, but it contains an overview of possible communication methods which can be used in community education, including their advantages and disadvantages.

According to the book 'Setting up Community Health Programmes' (Lankester, 2007), the discussion of knowledge, attitudes and practices should be part of the training of community health workers. They state that the content of the training programme should be based on the felt needs in the community, and not on a predetermined curriculum. The starting point should be the trainee's own knowledge. They give the advice to listen to and respect all ideas and then to approve and build upon *correct ideas*, *not pay attention to neutral ideas and to correct and alter wrong ideas*.

The book 'Helping Health Workers Learn' (Werner and Bower, 2005) is a lot more comprehensive on the topic of traditional beliefs. They noticed three mistakes that are commonly made in the approach to local customs: they are looked down upon, looked up to or they are ignored. They see the first option as most dangerous, since this attitude contains a major risk of losing respect for the community's cultural values. They state that the biggest challenge in community health work is not to change the people's behaviour, but rather to help the people to understand, respect and build on their own culture. Their recommendation is to help the people to look at their own traditions, and to determine together which customs might be helpful and which might be harmful. In this process, the most emphasis must be put on the helpful traditions, since thereby the confidence of the locals will be built up.

The handbook 'Where there is no doctor' (Werner, 2004) also included some pages on home cures, popular beliefs and harmful ideas about diet. They state that the 'healing power of belief' can be very strong, mainly in cases of mental health. They acknowledge that many people can find healing or comfort in the power of prayer, but they also plead to see '*effective medicine and life-saving operations as God's gift to mankind*'. (p. 3) The book also talks about finding the right balance between prevention and treatment, a balance which is often determined by the perception of the community. They say that early treatment should be seen as a form of prevention, stating that when people's attitude changes and they see more diseases being controlled, their focus would also shift from treatment towards prevention.

The KAP-manual (Macías and Glasauer, 2014) gives some examples of possible nutrition strategies that can be used to improve knowledge, attitudes and practices. For example, they suggest to present health consequences if the perceived severity is low or to hold brainstorm sessions and group discussions to talk about perceived barriers and ways to overcome them.

Denney, Mallett and Jalloh (2014) argue for an 'end-user' perspective: not how the health providers would want the health system to be, but how the system is perceived and used by the users. The communities should not be asked to choose for either traditional or modern

medicine, but health educators should rather use the opportunity of having multiple entry points in the prevention of malnutrition.

The book 'Food habits and consumption in developing countries' (Den Hartog, Van Waveren and Brouwer, 2006) states that especially temporary food taboos should get much attention, since they concern vulnerable groups like pregnant or breastfeeding women, young children in their growth period and sick children. The writers see it as a positive fact that local people have (temporary) food prescriptions, because they indicate that they are well aware of the critical period of pregnancy, lactation and weaning. This is something that should not be undermined, but rather reinforced.

In the book 'The spirit catches you and you fall down' (Fadiman, 2012) the writer asks Arthur Kleinman, a medical anthropologist, how to deal with a pluralistic system and cultural differences in health care. His advice is '*to decide what is critical and be willing to compromise on everything else.*'(p. 260) Kleinman is also the author of a list of eight questions (Kleinman, 1980) that can be used to get more insight into a person's perception of illness.

4.2.2 Behavioural change communication

An important step in drawing up educational activities is to determine the strategy, including the possible communication styles and methods. Communication on behavioural change is a crucial part of educational activities. Yazachew and Alem (2004) state that a message is adequate if it:

- Is epidemiologically correct (evidence based)
- Is affordable (feasible)
- Requires minimum time/effort
- Is realistic
- Is culturally acceptable
- Meets a felt need
- Is easy to understand

They state that the use of multiple communication methods is the most successful, but interpersonal communication is the most influential method. The most important aspect is to negotiate behaviour change by encouraging caregivers to use their own resources.

According to Contento (2008), making use of the social marketing method in programme drafting should minimise the chance that nutritional education fails because of personal beliefs, perceptions or practical problems. Behavioural change communication not only provides the target group with technical information, but also deals with practical constraints, social norms, or cultural perceptions that could block actual behavioural change. The writers of the article state that counselling should mean that practices are negotiated with the 'client' and that effective communication requires the consideration of the clients' needs, preferences and perspectives. Another important factor is the understanding of the possible barriers, which could be explored through formative research. The first step in the communication should be creating awareness about (the risk of) unhealthy behaviour, followed by exploring possible solutions.

The Community Worker's Training Guide (SPRING Project, 2014) suggests following the 'GALIDRAA' steps when negotiating with caregivers about behavioural change:

1. (G) Greet the caretaker, ask about their family & work, and put them at ease.
2. (A) Ask about current practices and the status of the health issue you want to raise.
3. (L) Listen to what the caretaker says.
4. (I) Identify potential problems.

5. (D) Discuss with the caretaker different options to overcome the difficulty, showing appropriate pictures.
6. (R) Recommend and negotiate doable actions: present options, ask if the caretaker is willing to try a new practice to improve the situation, and help the caretaker select one that can be tried.
7. (A) Caretaker agrees to try one of the options, and caretaker repeats the agreed-upon actions.
8. (A) Make an appointment for a follow-up visit.

4.2.3 The participatory approach

One way to improve the role of cultural heritage in educational activities is to use a participatory approach. Yazachew and Alem (2004) state that the participation of community members can make a programme better adjusted to the local situation. It also *'promotes self-help and self-reliance. If community members do their own development work, they learn and become more conscious of their needs and potentials for solving their own problems, they make use of local skills, they learn to be responsible...'* (p. 31) The FAO (1997) states that there is growing support for the idea of inviting community members to participate in seeking solutions for nutritional problems, since that enlarges the long-term impact of nutritional interventions. They wrote a handbook (FAO, 1993) for participatory nutrition projects in which they show how a participatory appraisal of community food and nutrition can be a way to raise awareness, promote participation of different groups and empower the community.

4.2.4 The informed decision making approach

In the informed decision making approach (Yazachew & Alem, 2004) the key element is to give the target group all the needed information and problem solving and decision making skills, but the actual choice should be left to the people themselves. In this approach, it is the role of the educator to talk and listen, find reasons for people's behaviour, help people to see the reasons for their actions and health problems and ask people to give their own ideas for solving problems.

4.2.5 The PD/Hearth approach

An instrument to assess the positive nutritional practices in a community, used both in a study in Zambia (Mulenga, 2014) as well as in Sierra Leone (Denney, Mallett & Jalloh, 2014) is the 'positive deviance inquiry' (PDI). The aim of this method is to find positive behaviour which leads to positive health-outcomes. This method could be followed by trials of improved practices (Mulenga, 2014) whereby the found positive practices are tested on possible biases. Through this method, the proposed practices can be tested and, if needed, adjusted. But it also gains *'...a realistic picture of where poverty and/or lack of coping skills were so significant that the mother, family unit, and community could not change their practices enough to have significant nutritional impact'* (World Bank, n.d. p. 2)) In Zambia the researchers found that through the PDI's the community went through a 'community discovery process', which might have made the adoption of the behavioural changes easier. Therefore, the 'positive deviance inquiry' method could not only be useful for researchers and programme planners, but it could also help the community to get more insight in the prevention of malnutrition and helpful practices.

In the PD/Hearth approach (Sternin, Sternin & Marsh, 1998), this community assessment is performed by the mothers themselves. With this assessment, the mothers look for the positive practices of well-nourished families in the same (poor) situations. After this, the mothers are educated and trained to apply these healthy practices in their own households, in 12 'Hearth Sessions'. Apart from education on healthy food, there are also food demonstrations, where the mothers learn how they can prepare healthy foods with affordable ingredients. An important condition is that the mothers contribute these ingredients, so that they will see that they can afford these nutritious meals themselves. More about this method can be found in manuals from *The Positive Deviance Initiative* (n.d.), Sternin, Sternin and

Marsh, (1998) or the *Nutrition Working Group, Child Survival Collaborations and Resources Group* (CORE) (2002).

Summary 3 - *What are useful methods and approaches to successfully combine traditional beliefs with modern medicine?*

The literature shows that it is important to talk about the beliefs, perceptions and attitudes with the target group. This has to be done with a constructive attitude, it should positively encourage the women to define the helpful practices to build on and the harmful practices to replace or change. The suggested changes should be suggested by the women themselves and they should be small and easy. The education should be based on the communities felt needs and their perceptions should be the starting point, whether they are true or not. Treatment could and should be used as an opportunity to talk about prevention. There are several approaches like the participatory approach, the informed-decision making approach and the PD/Hearth approach that could be useful in addressing beliefs, attitudes and perceptions. The 'GALIDRAA' steps, Kleinman's questions, Positive deviance inquiries and trials of improved practices could be used to address and discuss them.

5. CONCLUSION

The focus groups showed a strong external locus of control, where the causes, treatment and outcomes of sicknesses were often attributed to God. This led to a certain degree of fatalism concerning their child. The consulted literature agreed that the traditional beliefs and food taboos should be talked about. This is not only the case for attitudes and practices, but maybe even more for the underlying worldview.

According to the literature, it would be a mistake to ignore or condemn the strong belief in God's interference in a child's health during educational activities. The worldview and perceptions of God's role could and should not be separated from the women's perceptions and practices. It should rather be positively addressed and built upon. It is advised to not let the women choose between their traditional beliefs or medical treatment, but to (help them to) find ways how they can both go hand in hand. The results showed mainly negative effects of a strongly upheld belief in God, but ways should be sought to address and use the strong belief as a good thing. An important principle is not to try to correct or criticise, but to let both systems complement each other.

The question remains whether malnutrition, both the moderate and severe cases, is actually a 'felt need', since this is one of the important conditions for effective health interventions. There seemed to be ignorance concerning prevention, the focus was mainly on treatment. This also seemed to be related to the perception that it is not the women but only God who can change the situation. Educating the women on the signs, consequences and risk-factors of both moderate and severe malnutrition, can only have a limited impact unless the women acknowledge their potential to bring about change. This can therefore only be done after exploring and discussing their worldview. The women should be counselled in discovering the influence they can (and want to) have on their child's wellbeing.

The existence of a pluralistic medical system appeared to be the status quo and the different options seemed to be co-existent rather than competitive. There was no clear indication on when to use what type of care, but 'trying and seeing what works' seemed to be the standard. Whether a child was expected to 'have life' was an important predictor for the type of treatment that was sought. This could be addressed by trying to convince the family to at least try to see if treatment in the nutrition centre would work. The best way to do this seems to be by using example stories and pictures. The focus groups also showed that, although their belief in God's role was strong, the women were open to trying different types of treatment. To prevent late care-seeking and harmful practices, the nutrition centre should actively promote itself as the place where malnutrition can be cured.

However, there was also a downside on presenting the nutrition centre as the expert on the area of malnutrition: the perceived self-efficacy of the women was very low, mainly because of a perceived lack of knowledge and means. Perceived poverty came up in every group, and this seemed to be a strong barrier. The PD/Hearth approach responds to this perception by challenging the women to contribute the needed food items for cooking demonstrations during health education sessions. This approach can help the women to see what they can achieve from their own situation. Another method found to empower the women is the implementation of a positive deviance inquiry, which is also part of the PD/Hearth approach. Applying this method to the situation in Gushegu could improve the self-efficacy of the women. Another strength of this approach is that not only the women but also their family and community can experience with their own eyes the improvements a child could make with some small improvements in their diet.

There were some food taboos such as those about eggs or mangoes and cold food for pregnant women, however these were not strongly upheld in every community. Sometimes traditional healers could pro- or prescribe food items, but these differed per situation. One

practice that seemed to be very strong was that the women based their perception of 'good' and 'bad' food during life events on whether the consumer likes and tolerates the food. This resulted in a decrease in variety of the consumed meals. The consulted literature agreed that the traditional beliefs and food taboos should be talked about and that the community should be coached in determining which practices are harmful and which are helpful. This could for example be done by making use of Kleinman's questionnaire. However, the literature and the group discussions showed that both traditions and beliefs are not indisputable and they also differ per community. In the education this can be taken into account by not making assumptions straight away but by first talking about beliefs, attitudes and perceptions before proceeding to the actual education. In the education, behavioural change communication could be used to promote new, small, positive behavioural changes.

The central question of this study was *How Project Share could address the traditional beliefs, perceptions and attitudes of Dagombas during educational activities related to malnutrition, so that it will support the modern-medicine based treatment and prevention of malnutrition*. After analysing the data from the focus group discussions and interviews and consulting literature, the conclusion is that there was one major underlying factor, which was a strong believe in dependence on God's will. This religious perspective should be the starting point in every educational activity, since it would not make any difference to only address the physical causes. First and foremost, one has to make sure that the women (and their family) acknowledge the influence they have on their child's health. Subsequently, beliefs and perceptions should be talked about with respect. The caregivers of malnourished children should be approached positively and community participation in every step of the process is essential. Positive experiences should both be created and built upon, which might be even more important for prevention than for treatment. The PD/Hearth method could, with some adjustments and additions, form a good foundation to build the educational programmes on. More about recommendations on the application of the outcomes of this study can be found in the implications, chapter 7.

6. DISCUSSION

6.1 Comparison with other studies

According to Gaba (1995) traditional Africans do experience health as a situation of total (physical, mental and spiritual) wellbeing. Any physical illness cannot be seen -and could therefore also not be approached- in isolation, but rather as one link in someone's physical, mental and spiritual state. This is in line with the conclusion that is also drawn from this study. Gaba (1995) also states that culturally defined food habits could not solely be held accountable for the high prevalence rate of malnutrition. At the same time he recognises the significant role religion plays, influencing people's world view and perception. This is comparable with the outcome of this study: Not many food taboos turned up, but religion seemed to play a significant role in people's perceptions and attitudes.

The recommendation in this study was to positively address the strong belief in God. This approach is supported, and further elaborated by Food for the Hungry, an organisation that combines a Christian worldview with the fight against malnutrition. One of their reports (Food for the Hungry, 2013) shows that *'mothers in Bolivia who believe that God wants all children to survive are about 15 times more likely to have a well-nourished child'*. (p. 1)

Denney, Mallett and Jallon (2014) conducted research in Sierra Leone similar to this study. They also found that taboos and beliefs are not indisputable, but that they differ per community and change in time. This study shows a low number of food taboos, but the fact that others were not mentioned during the focus group discussion, should not immediately lead to the conclusion that they do not exist. Denney, Mallett and Jallon's study also included research on the several health providers in Sierra Leone, which seems comparable to the situation found with this study. They found that the different providers are more cooperative than competitive, both from the providers view as well as from the users view. Emeagwali and Sefa Dei (2014) also support this view, stating that for Africans different ways of healing can co-exist, whereas this is often hard to understand for people from a western background.

Although Aubel (2006) and McGadney-Douglass and Douglass (2008) show how influential grandmothers are in decision-making processes, the interviews sometimes gave the impression that the final decision is made by men. Though this aspect was not included in this study, it is worth further investigation, a suggestion that is supported by Annim (2012). Denney, Mallett & Jalloh (2014) state that nutrition educators should get 'beyond nutrition as a women's issue' and men should also be include educational activities.

6.2 Reflection on method and quality

Although the aim of the group discussions was to facilitate a discussion, in practice they looked more like group interviews. This could have been due to the fact that the 'discussion' had to be stopped for translation or that the translator mainly translated the 'bigger line' and not the minor comments in between the lines, which are often most telling. But it could also be an expression of the collectivistic culture. The women did not argue with each other during any of the group discussions, they only elaborated on each other's answers. It is not clear whether this was an expression of their culture or that it has to do with an error in the set-up of the study. It was also a challenge to get equal input from all the women. In almost all of the groups there was one or more dominant figures, which could have influenced the outcomes. However, it could also be that these women, in their family and community, would also take the lead and are the ones who are always in charge of making decisions.

The reliability of the collected data was very much influenced by the fact that the research was performed by someone from a European background. Although cultural analysis has been made to avoid cultural misunderstandings as much as possible, there is a fair chance that the given answers were – at least partly- socially desirable and that the presence of a

'white person from the nutrition centre' during the group discussions held back the women from speaking freely.

The interviews showed that the women did not always understand the difference between treatment and prevention. It could have been possible that this misunderstanding was (only) based on terminology, however the nutritionist also recognised the difficulty in the understanding of prevention.

6.3 Further research

There may be several traditions, beliefs and perceptions which could also influence a child's nutritional status, but which were either not discovered or intentionally excluded from this study. These could, for example, be beliefs and practices concerning family-planning and gender-equality, or beliefs and practices that might have been left unmentioned by the women (see also Denney, Mallett & Jalloh, 2014). Besides, the mentioned beliefs, attitudes and perceptions do not necessarily fully represent the actual (health) behaviour. This is also mentioned in the Sierra Leone report (Denney, Mallett & Jalloh, 2014). Additional (observational) studies could therefore give more information about the actual behaviour, driven by the beliefs and perceptions that are already exposed through this study.

Although focus group discussions are the recommended method to do explorative research (Wong 2008; Belfrage & Wigley, 2013), they do not say anything about the prevalence and distribution of these beliefs. This leads to the recommendation to perform a more extensive, quantitative research. This research could be based on a KAP questionnaire (Macías and Glasauer, 2014), applied to the local situation. The information from this study could be used to modify the questionnaire. To minimize the chance that beliefs and practices would (again) be left unmentioned, more research should be performed to compose a list of potential beliefs and practices. It must be said that this research would require an immense time-investment, considering the high illiteracy rates in the district (Ghana Statistical Service, 2009). Due to limited time and for practical reasons observational methods were not a part of this study. However, as an important part of ethnographic research, it could have given more and other types of information. To get more information about the practical side of behaviour in particular, observations could be an important follow-up of this study, and it could be used as an extra formative research to compose a quantitative KAP-questionnaire. It could also be interesting to do more case-studies and follow-up visits. Case studies on parents who first tried traditional medicine but later successfully switched to modern medicine, or who strongly uphold traditional beliefs but managed to combine these with modern medicine could give more insight into the processes and steps that it takes for people to change their minds, attitudes, perceptions and practices. Intensive follow-up on patients could also give more understanding of the barriers the people face when applying new knowledge at home. Especially the so-called 'relapse-cases' could help to get more insight and understanding. Therefore, both intensive follow-up programmes and case-studies should be part of further research.

One conclusion that was drawn from the focus group discussions was that the perceived poverty was very high. However, poverty cannot solely be held responsible for the high rates of malnutrition. McGadney-Douglass and Douglass (2008) state that even once a country has sufficient food supplies and becomes politically and economically stable, the prevalence rate of malnutrition does not necessarily go down. Further research is needed to determine if the high prevalence rate of malnutrition could be overcome without financial impulses/changes. This could be done by researching the relation between the financial status of a family and the nutritional status of children. It could also be of interest to do more research on the amount of money that is actually spent on and is available for food for the children, and what the possible variations in the daily menus within the families budgets are.

Although it was the aim of this study to give ideas on how to combine traditional beliefs with modern medicine, and a list of useful recommendations is included, the question remains

how exactly the underlying worldview should be combined with the modern-medicine based treatment. This study does not completely answer that question, since this would require discussion and research on a whole other (theological) level. Since it is unwise to ignore or deny the worldview and perceptions of God in educational activities, the recommendation for the project is to further research this topic.

7. IMPLEMENTATION

A list of ideas for the implementation of this research at Neesim Nutrition Centre can be found below. It must be said that some of these are only rough ideas which need further planning if they are to be used for health education. It is advisable to first conduct the recommended research to further strengthen the formative basis of the health education. However, one shouldn't hold one back from making adjustments to the current education based on these recommendations. The knowledge that worldviews and perceptions of God play such a major role, should always be the basis of any educational activities, although further research is needed to determine how exactly this should be done. Behavioural change can only be achieved when the worldview and perceptions of illness are known and talked about.

7.1 General

7.1.1 Caregivers as a starting point

The literature showed how much more likely it is for the women to change behaviour or attitudes, if their perceptions and ideas are seen as the focus point. The behavioural changes that are suggested should be small and easy from their point of view. It is the task of the educator to point or lead the women in the right direction. One example of how this could be applied to the health education is to try to only ask questions for a while, before giving answers or advice. More on this could be found in books/resources about motivational interviewing or behavioural change communication.

7.1.2 Invest in a few communities

Health education and behavioural change takes time, only educating a community once or twice is not very effective. Building trust and relationships is important and follow-up and evaluation should also be part of an education programme. It could therefore be advisable to choose a few communities to invest in, in agreement with the District Health Service.

7.1.3 Creating positive experiences

The focus group discussions and the in depth interviews showed that positive experiences and examples can have a positive influence on the target group. It is therefore helpful to encourage mothers to share about their experiences. This can be done by helping the women to share their experience and knowledge with their community once they get home. It could be helpful to work on the reputation and recognition of the nutrition centre, so that people can recognise the signs of malnutrition and come to the nutrition centre. However, whilst showing that malnutrition can be cured is important and might draw more people to the nutrition centre, it might be even more important to also create 'positive encounters' with prevention. This is quite difficult since you cannot really see 'what would have happened if..'. It might be helpful to also focus on moderate cases of malnutrition, and children who are at risk. By letting them stay at home but counselling the mother and monitoring the child, they can witness change in their child without putting the child at risk.

7.2 Research

7.2.1 Case-studies, observational studies and follow-up

Case studies could be used to get more in-depth information. These case studies should highlight children who were successfully rehabilitated and did not relapse. For example the story of Yussif (see attachment 5) could be used for a case study where, apart from the mother, also the father and other family members, caretakers and health workers are interviewed. These case-studies could provide more insight into the determinants that had an influence on the positive outcome. They could for example highlight how the women managed to make healthy food with limited means, what helped them to make the decision to go to the nutrition centre, what was the influence of the family in this process, how they

perceived the causes and the treatment and so on. It also could be very interesting to do case studies around children who did not survive malnutrition, although this requires much more sensitivity.

Follow up should be done on every child that leaves the nutrition centre, but especially if the child relapsed or defaulted. This could give more information about the barriers and struggles that the caregivers face, and also give information about the risk factors and pitfalls. The choice can be made to, during these case studies, only focus on the knowledge, attitudes and practices discovered in this study, or to also include other potential co-factors like family-planning etcetera. This could be used to collect formative information to base the education on, but in general it could help to see where the nutrition centre could improve the care and the education. As also mentioned in the discussion, this study did not include observations, although they would be a good method to get more insight into the practices, and actual behaviours.

7.2.2 KAP questionnaire

A KAP (Knowledge, Attitudes and Practices) Questionnaire is a quantitative method to measure the distribution of (and optionally also the change in) knowledge, attitudes and practices. A very helpful handbook that is advised to use in the preparation for this KAP-survey, is Macías and Glasauer's KAP-Manual (2014). This handbook very clearly gives guidelines for the preparation, implementation and evaluation of a KAP-survey, but to make the questionnaire complete, information collected with the above mentioned studies should be included. Although the KAP-survey as worked out in the above mentioned handbook is a quantitative method, it could also give more qualitative information. Since all the questions need to be spoken out by the surveyors because of an illiterate target group, this opportunity could be used to also ask more in depth questions. The KAP-survey could be used to make an analysis of the situation in the district, or to measure the impact of the education. In the second case, the KAP-questions could be asked at admission and at discharge.

7.2.3 PDI/TIP

Positive deviance inquiries (PDI's) and trials of improved practices (TIP's) could, as mentioned above, give more information about successful practices. These methods could be used, for example, to overcome the barrier of perceived poverty. With the PDI-method, families with a low income but with healthy children could be interviewed and observed to investigate their positive practices and to see how they cope with their poverty. With this information, improved practices or behavioural changes could be suggested, which could be tested with a TIP. These two methods can help to make the suggested behavioural changes culturally acceptable and achievable. This effect is strengthened when the target group is invited to participate during the research. This could be done by, for example, conducting the TIPs in the nutrition centre, or letting the women do them after they are discharged, in their own community.

7.3 Educational activities

7.3.1 Kleinman's Questionnaire

As mentioned above, doing a KAP-questionnaire at admission and discharge could be a way to make the knowledge and perceptions of the women discussable. However, both the development and the execution of that kind of questionnaire is very time consuming and would first need further research. Another option for discussing these perceptions is make use of the eight questions of Kleinman (2008) during the women's stay in the nutrition centre. The following adjusted list of questions could be included towards the beginning of a woman's stay at the centre:

1. What do you think caused the problem?
2. Why do you think it happened when it did?
3. What do you think your sickness does to your child? How does it work?

4. How severe is your child's sickness? Will it have a short course?
5. What are the chief problems the sickness has caused for you and your child?
6. What do you fear most about the sickness?
7. What kind of treatment do you think your child should receive?
8. When did you notice that your child was sick? *
9. How did you notice that? *
10. How did you try to treat it, and how did that go? *
11. What did your family (husband, mother, in laws) advise you to do? *
12. When did you decide to come to the nutrition centre? *
13. What are the most important results you hope to receive from this treatment?

Note: Questions marked with a * are not part of Kleinman's questionnaire.

Using these questions could provide more information which could be used to adjust the content of the education. It could be a starting point to talk about perceptions, and could show the women that we care about their ideas and opinions. It could also give child and mother-specific information that should be taken into consideration during the rehabilitation.

7.3.2 Mini-assignments

Several resources suggested to include in the education a discussion of the potential barriers faced at home, which will give the opportunity to talk about ways to overcome them. They also suggested to keep the changes small, one step at a time. To keep the changes suggested during the educational activities manageable, one small behaviour change could be suggested each session and could be given to the women as a small assignment. For example: 'I wash my hands before I start cooking', or 'I immediately clean my child if he urinates'. During a subsequent education session, the women could discuss together how it went with the 'assignment', if they were able to do it, what helped them or what made it more difficult. The perceived benefits could also be talked about during this time. In this way, the steps can be kept small, and the women also get a chance to talk about their experiences. Of course in this case it is also best if it is a behavioural change the women suggested themselves, counselled by the educator.

7.3.3 Ambassadors system

The stories from Kpatinga and from one of the mothers showed how powerful the example of one child from a village getting healed by the nutrition centre can be. Starting a system of 'Ambassadors of Neesim Nutrition Centre' can help to spread the knowledge about malnutrition out over the district. In this system, the women whose children are rehabilitated at the nutrition centre become, if they are willing and able, ambassadors of the nutrition centre. Their tasks could be:

- To look around and refer mothers with malnourished children to the nutrition centre.
- To give mothers with 'at risk children' advice on how to prevent severe malnutrition, and keep monitoring these children.
- To share their knowledge about nutrition through education sessions or by leading groups like a 'mother-to-mother support groups'.

They could perhaps also get an 'ambassadors-kit', which could include things like MUAC-tape and educational materials including pictures with the signs of malnutrition and 'before-and-after' pictures to show in their community. The ambassadors would of course need some training; it has to be made sure that they understand the cause, treatment and prevention of malnutrition and that they can apply this knowledge in their own situation. It could also be an option to organise monthly meetings with the ambassadors, to talk about their 'job': whether they referred children, barriers they face, how they shared their story etc. These meetings can also be used to check on their own child.

7.3.4 Perceived poverty

The perceived poverty was very high, and it might be interesting to see how this relates to the actual poverty. Involvement of the women on this topic could be a very interesting activity. It could be for example an activity that is carried out in one or more villages. Let the women discover what is possible within their budget by letting them look for:

- How much money they have, or could make available to spend on food for their child
- What types of food would be good for their child
- What these types of food would cost them
- What the benefits and costs are, for both their budget and the health of their child
- What the other, cheaper options are, or what options are to gain some more income

During this whole process they do of course need counselling and sometimes it might be good to give them advice or add something to their knowledge, but by approaching it as 'their project' instead of telling them what types of food they should buy, it will make it more likely that they will actually change something. It might be helpful to first do some research yourself, to see what the actual options are.

7.3.5 PD/Hearth approach

As already mentioned in the conclusion, the PD/Hearth approach could be a good method to use for educational activities. It must be said that this is a programme that requires an investment in both time and money. The handbooks mentioned in the results give useful guidelines on how to start a programme like this, which might be a good option to be taken into consideration.

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Attachment 1 – Focus groups discussion guide

Introduction

A focus group discussion is a method often used in health and medical research (Wong, 2008). According to Krueger & Casey (2009) and Dawson, Manderson and Tallo (1993), a focus group discussion is an effective method to explore people's attitudes, traditional health beliefs and practices, which also is the aim of this research. A focus group is - in this case- expected to give a broader picture of peoples beliefs and attitudes than only one-on-one interviews or surveys because participants can stimulate each other's thinking process and complement each other's ideas (Wong, 2008). Koski (2009) states that this especially works in a collectivistic culture like Ghana, where group discussions are a usual form of communication. Next to that, the setting gives the moderator the opportunity to ask supplementary questions to deepen out the answers. According to Przepiorkowska (2010), focus groups can therefore provide a greater depth of understanding than survey questionnaires. Next to that, written questionnaires would ask for a lot more organisation when held in an illiterate environment.

However, the use of focus group discussions also knows some limitations, especially in this cross-cultural setting. Firstly, it is proven to be most effective to conduct the discussion in the first language of the participants (Belfrage & Wigley, 2013), for this makes them feel most comfortable (Przepiorkowska, 2010). Thereby, translating is highly time consuming and the group discussion has to be paused constantly. Unfortunately the researcher does not speak the local language (Dagbani), and local researchers with enough understanding of the purpose of the research and the needed skills to act as a head moderator seem hard to find. Next to that, it is a great opportunity for the researcher to gain more proficiency in this type of qualitative research, and to gain cross-cultural experience.

To decrease the disadvantages of using translators during the focus group discussions, some adjustments are made, partly based on Dawson, Manderson and Tallo's research (1993):

- The groups will have a maximum of 4 participants
- Next to the main translator, an extra local person will be used to observe and help with translating
- The observer and translator will be educated about the purpose of the research and trained in translating.
- During the transcription and interpretation, someone who speaks the local language will again translate and see if the right interpretations are made

Another limitation is the difference in culture between the researcher and the participants. Miscommunication and misunderstanding could easily disturb the relationship between researcher and participants and it could influence the outcomes and interpretations of the collected data. To get a better view on the potential biases, the researcher critically reviewed her own culture and compared this with the Ghanaian culture and communication styles. Next to that, the researcher was advised on cultural do's and don'ts and deepened her knowledge about intercultural communication. The report can be found in attachment 2.

The combination of a cultural outsider working together with a cultural insider also has its advantages. The cultural insider knows the local customs and etiquettes, and can easily communicate with the participants. The added value of the outsider is that this person can have a fresh look on the culture. The bottlenecks between traditional medicine and modern medicine in a traditional setting will be noticed sooner by someone coming from a western culture where modern medicine is the standard, than by someone who grew up with the traditional medicine. This can help to go deeper into some of the answers given during the focus group discussion by asking additional questions.

Discussion guide/ topic list (introduction, important principles)

The discussed topics are based on prior literature research, which is described in the final research report (chapter 2). The questions are based on the Health Believe Model (Morris, Marzano, Dandy, and O'Brien, 2012), Kleinman's questions (Kleinman, 1980) and prior research performed on the same subject and/or in the same area. These questions only serve as a guideline, and often the researcher will go deeper into the answer by asking more (related) questions.

NOTE: The focus group discussion guide will be tested with some women at the Nutrition Centre. The changes are quite big that the time will be too short. In that case, the two main topics will be discussed during two different meetings. A second appointment will be made in consultation with the participants and the chief.

1. Introduction

In the introduction the researcher will go through the following important points:

- Greet and thank the women for participating
- Explain the background of this meeting: As a researcher I want to know more about the local beliefs and perceptions of several diseases
- Explain that I am here to learn and not to teach them, I want to know more about their beliefs, since they are the ones with knowledge about it.
- Explain that there are no wrong answers, and that the participants can also respond to each other
- Explain that what will be said will not be used for other purposes, and will not be shared with others outside the group
- Explain the role and task of the moderator and the translator
- Explain that the discussion will be recorded so that I am able to listen it back.
- Explain the time frame of the meeting, and explain that it would help it if we would not be distracted during this time.

2. Causes and treatment of MN

At the first actual part of the discussion, 4 pictures of children will be used. One of a moderate case of kwashiorkor, one of a severe case of kwashiorkor, one of a moderate case of marasmus and one of a severe case of marasmus. The following questions will be used to trace the women's perception and interpretation of the signs.

- Do you think this child is healthy?
- What do you think could be the disease that this child is suffering from?
 - o Probes:
 - Are there other names you use for that disease?
 - Could it be something else?
 - How can you see that it is that particular disease?
- Do you know someone in your community who has/had this disease?
- What do you think could be the cause of this disease?
 - o Probes:
 - Are there other causes?
 - What happened to this child that it got this disease?
- When is someone at risk of getting this disease?
 - o Probes:
 - How does it come that some children do get this disease and others don't?
 - Is there anything you could do to prevent this disease?
- Do you think this child needs help?
 - o Probes:

- What do you think will happen to this child if you do or do not seek help?
- Where could you go with the child?
 - Probes:
 - What are the possible treatments for this child?
 - Do you think medicine could cure this child?
 - Do you think a spiritual healer could cure this child?
- If it were your child, where would you go?
 - Probes:
 - What kind of help would you sought?
 - Do you think, in this case, it would be better to go to the hospital or to the traditional healer?
 - What are the reasons to choose for either the hospital or the traditional healer

3. Food Taboos and prescriptions

For each of the groups, the following questions will be asked. The different groups will be made more realistic by turning them into a specific case.

Case 1. A pregnant women.

Aisha is the second wife of her husband. She lives on the compound with a large family. Aisha already has 2 sons, and she is now pregnant of her third child. Aisha wants to know what kind of foods would be good or not good for her to eat.

Case 2. A breastfeeding mother and her baby.

Aisha just got her baby: a healthy baby girl. The baby has given the name Fusheina. Aisha wants to know if it would be good to give breastmilk to her baby, and if there are other foods she should or should not give. She also wants to know what foods would be good or bad to eat herself, and what foods would help her to produce enough breastmilk.

Case 3. A young child.

Fusheini has grown and is now 3 years old. She is healthy and growing well. Are there things she should or should not eat?

Case 4. A sick child.

Lately Fusheini is not feeling very well. She does not want to play, and cries a lot. Her mother wants to know if this could be because of wrong foods, and if there are foods that Fusheini should or should not eat.

Questions:

- Would it be good for this person to eat?
- What types of food would be good for this person to take? Are there certain types of food this person should take?
 - Probes:
 - What makes these foods good?
 - What will happen if she takes them?
 - What would happen if she would not take them?
 - Are there foods that would help the person to (grow/get better/produce more milk etc.)
- What kind of foods would be harmful for this person? / Are there certain types of food this person should not take?
 - Probes:
 - What makes this food harmful?
 - What would happen if she would take this?

- Are there any rituals that involve food that could or should be performed during this period?
 - Probes
 - What do these rituals look like?
 - How do these rituals help?

4. Closing

During the discussions, the answers should be shortly summarized in order to check if they are well understood and to see if the women want to correct or add something. After each topic the women should be asked if there is more they would want to share. In the end the women should also be asked if there is anything else they want to tell or add to what they already said.

Close the meeting with thanking the women again.

Resources

Belfrage & Wigley (2013) *Guidelines for conducting Focus Group Discussions*

Dawson, S., Manderson, L., & Tallo, V.L. (1993) *A manual for the use of focus groups*. Boston, MA. International Nutrition Foundation for Developing Countries (INFDC)

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Przepiorkowska, D (2010) *An Interpreted Focus Group Interview as a Type of Interpreter-Mediated Event*

Wong, L.P. (2008) Focus group discussion: A tool for health and medical research. *Singapore Medical Journal* 49 (3) 256-261

Picture 1 – Resource: obtained from <http://heifer12x12.com/2013/07/11/cameroon-the-remix/kwashiorkor-a-profile/>
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Picture 2 – Resource: Project Share's archive



Picture 3 - Resource: Own archive



Picture 4 – Resource: Project Share’s archive



Attachment 2. Cross-cultural communication

Introduction

This document is written to get a better view of the cultural differences between the Dutch researcher on one side and the Ghanaian participants of the interviews on the other side. Awareness of the cultural differences will make it easier anticipate and to limit the chance of miscommunication and misunderstanding during the focus group discussions and the in depth interviews.

The information in this document comes, unless otherwise specified, from personal experience in the last 6 months and conversations on this topic with locals.

1. Ghanaian versus Dutch culture

When we look at Ghana and The Netherlands through Hofstede's model (BRON INVOEGEN), we get the following comparison of the Ghanaian and the Dutch culture:

Power distance – 80 (The Netherlands scores 38)

Ghana is a country with a high power distance, which means that there is a strong hierarchy, not all individuals are equal. Especially elderly people and local chiefs get a lot of respect, but the level of education and the number of wives and children also influences someone's status. Dutch people are not that familiar with hierarchy and status is less important. Respect is not given to you because of your position or identity, but it is something that you have to earn with your actions.

Individualism – 15 (The Netherlands scores 80)

Ghana is a very collective society, where people belong to certain groups like families and tribes. In these cultures, loyalty towards group members is a very common behaviour. The Netherlands are much more individualistic. One can have his own opinion and people are much more on their own.

Masculinity – 40 (The Netherlands scores 14)

Ghana is a quite feminine society which means that working together, striving for consensus and solidarity in working lives is more important than gaining success, competition and achievements. In the Netherlands, achieving success is considered to be more important than building relationships.

Uncertainty avoidance – 65 (The Netherlands scores 53)

Ghanaian people seem to prefer certainty. In Ghana, this dimension is mostly expressed in religion and belief. Most of the Ghanaian citizens try to explain life and find certainty in their religion: Christianity, the Islam or any other local beliefs. In the Netherlands, this dimension expresses itself in working hard, a time-is-money atmosphere and a desire for rules and legislation.

Pragmatism – 4 (The Netherlands scores 67)

Ghanaians have a very strong preference to a normative way of thinking. Truth seems to be normative, it doesn't change in time or at any changing situation. Therefore, there is much respect towards traditions in Ghana. Compared to the Dutch, Ghanaians seem to value the social norms much more than any 'normative truth' Dutch people are more open to change, and truth is relative: everyone can have her/his own truth.

2. General rules of intercultural communication

To get more insight into intercultural communication, I've read some books and articles. I picked some of the – in my opinion- most important points of concern. Thereby I mainly describe things that make communicating in a intercultural setting different from communicating within my own culture.

According to the '*Nutrition handbook for Community Workers*'(n.d.) it is very important to know your participants' culture and background. In this way you can anticipate cultural differences, and adjust your communication to your target group. By building a relationship with them, you win their trust and also get more familiar with their habits and etiquettes. One thing that would also be important for me is to be reticent in making jokes. In my daily communication, I tend to make jokes and sometimes be a little sarcastic in the way I put things. It is very important to be careful with this, because these jokes could easily be misinterpreted.

In the interviews, I will be working with a 'cultural insider' who will help me with the translation and interpretation. In this setting, it is very important to have a relationship of trust with this person (Koski, 2009). We need to be on the same level and I need to trust that person to translate right, and I need to trust her that she will put her own opinion asides and make the right interpretations. I also need to trust her when it comes to cultural issues, that she will protect me and the participants against cultural misunderstandings.

Hoffman (n.d.) explains the importance of knowing the difference between a debate and a dialogue, when you are talking about someone's beliefs. The goal of the interviews is not to find out who is right or what is the absolute truth, but to get more insights in their thinking patterns. This requires an open and interested attitude. Hoffman gives a list of ten core competencies needed for a good dialogue. These are:

- Having an attitude of a learner, instead of being the one who knows it all
- Being respectful
- Being open to new insights and opinions
- Speaking from the heart, which means: not speaking to be liked or to get attention, but only talk about things that really matter to you
- Listening, both verbal and non-verbal
- Slowing down, giving each other the opportunity to finish sentences and time to think
- Putting aside your own suppositions, assumptions and beliefs.
- Constructive reasoning: also explain where your opinion comes from, and not just see your version as 'the truth'
- Having an interrogative attitude
- Observing yourself

Apart from this list, he also talks about 'diversity-aware competencies'. Differences in communication styles are not always a result of cultural differences, but could also be caused by a difference in age, intelligence etc. To be successful in this diversified communication, we need the following 5 attitudes:

- 1) Empathy
- 2) Openness
- 3) Social initiative
- 4) Emotional stability
- 5) Flexibility.

I think I have the skills to be open minded, to listen and to ask deeper questions. I think the biggest challenge for me will be to get the information I want, without being disrespectful. I need to learn (probably by trial and error) what questions I can and cannot ask. I am aware I have to try my best to not judge the answers they will give, even though they might seem odd to me. I think the biggest difference between me and the participants will be the direct and indirect communication style. However, I think my translator will be of big help in this case, because she can adjust my questions to the local culture. This will be also a challenge, because I also need to trust my translator to not change the questions I ask too much, so that I will still get the answers I want.

3. Cross-cultural communication styles

In his book *Intercultural Communication – a contextual approach* (2015), Neuliep describes four verbal styles of intercultural communication, which are summarised and applied to both the Dutch and the Ghanaian culture below.

a) Direct or indirect

If someone is using a direct style, it means that this person more openly (verbally) expresses his desires and needs. When someone is speaking indirect, he uses ambiguity and vagueness and tries to 'wrap up' his intentions. In a high-context culture like Ghana, people tend to use the indirect style, often to save face and to protect their relationships. Ghanaian people often speak in proverbs and sayings. Dutch people are very direct, and they don't see any point in equivocating. In this case, I am very Dutch. I like to say what my intentions are, and tend to ask exactly what I want to know. During my interviews I need to be well aware of this. This means both that I have to be careful about what I say and how I say it, but also that I should not expect to always get very clear and direct answers.

b) Elaborate, Exacting or Succinct

The second style describes a difference in the quantity of words used by a person to express something. The elaborate style is characterized by verbiage. Someone using the exacting style uses just as much words as needed, not more and not less. The succinct style uses few words and even silences. In Ghana, people would mainly use an elaborate style, their communication is rich and expressive. In Holland, most of the people use just as much words as needed. I think I would also fit into the exacting style, but it always depends on the situation. For Ghanaians, it might sometimes seem that I am shy or do not want to talk much. From my point of view, Ghanaians are sometimes talking a lot or saying the same thing over and over again, although this could also be caused by the translator, who might use the same translations for different expressions. During my interviews, I might have to be patient with that.

c) Personal or Contextual

A personal style is often used in an individualist culture, like the Dutch. This style is considered to be informal, there is an equality of power and positions. The starting point in this kind of communication is the 'I' person. In a contextual communication style, the role, identity and status of the other person and the context are of greater importance. In Ghana, which is a collectivistic culture with a high power distance, the style of communication is very contextual. Dutch people are more self-centred, also in their style of communication.

However, I do not expect to have issues with this, since I am raised in a quite conservative way, with respect for older people. One struggling point could be that I want to get too personal with the questions I ask during the interviews, where the participants might not see me in the right position to do so. I should always keep in mind that I am talking to older (so higher ranked) people. The advantage of using a translator, is that she can correct my language to make it more culturally appropriate.

d) Instrumental or Affective

A person using the instrumental style is communicating because he or she has a goal or specific outcome to achieve. A conversation can be ended when that goal is reached. An affective style centres more on the receiver and the process. The conversation would focus more on the relationship. This style is more focused on how the message is received, than with what intention it is sent. Ghanaians care a lot about relationships, this also shows in the way they communicate with each other. During the entire conversation, it is important to work on the relationship. Dutch people are more goal-focused, and I sometimes also immediately start to pursue my goal, before precluding the conversation. In the interviews this will also be very important, to first (from my point of view excessively) 'break the ice', but also keep this attitude during the entire interviews

Ghanaian communication protocol

I asked some of the people around me about important considerations and etiquettes in the communication with Ghanaians, especially in the setting of my interviews.

- Dresscode

In the Northern Region, being dressed appropriately will be highly appreciated. I have Ghanaian dresses, which I can wear to show my respect to their culture and to prevent that they are offended by the way I dress.

- Greetings

Greetings are very important in the Ghanaian culture. It is more than just saying hello. Because I've already been in Ghana for half a year, I know now how to greet people. This can give a good start to the interviews and will help me to build a relationship with the participants.

- Left hand

In Ghana you should never use your left hand to hand things over to someone. In my interviews, I need to keep this in mind when handing over pictures etc.

Resources

Education Child Development General (n.d.) *Nutrition handbook for Community workers*

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Hoffman, E. (n.d.) *Interculturele gespreksvoering – Theorie en praktijk van het TOPOI-model*. (3rd Edition) Bohn Stafleu van Loghum, Netherlands

Neuliep, J.W. (2015) *Intercultural communication – a contextual approach*. (6th Edition)

Attachment 3 – Transcriptions Focus group Discussions

Kpana – Grandmothers

Number of participants: 3

Setting: In a room with an open door

Observations: One of the grandmothers took the lead and talked the most. The second one also contributed enough and the third one did not say much but she nodded in agreement most of the time. It might have been the case that the third grandmother had visual problems, she seemed to struggle with viewing the pictures. The group discussion was not disturbed by people or other factors.

Picture 1

All women agreed that this child was not healthy.

How can you see that the child is not healthy? *'If a stomach looks like this, it means that the child is sick. The child is even sucking the hand.'* *'Sometimes a child with a stomach like this people may say the child had poisoned food. But sometimes we don't want to admit it.'*

So this child has a big stomach because it was poisoned? *'Yes that it was they always say'*

How did the food become poisoned? *'Sometimes it is done by people who are bad, it can be witchcraft. You will not actually know that it is poisoned food that the women has planned to give to you or your child "That is what we local people always think. That is the perception we are having. You just say that the child has been poisoned. But also piles can make a person's stomach to be like this.'*

How do you now if it is piles or poisoned food? *'If it is two children who have eaten the same food, and they are both sick, then it is poisoned'* *'Nobody can know, it is God who tells you that it is poisoned food. Or you just take it like that.'* *'Only God knows'*

How would you treat the child? *'If it happened like that, they would always send it to somebody like a herbalists. Then the herbalist will give them medicine. The herbalist can give the medicine and God will help the child to recover'.*

'The time that they send it to herbalist is when they have send it to the hospital and there they have told that the hospital cannot do anything about this sickness and you should take the child home. They will now try and treat it in the local form'

'You can go to somebody who is having experience, like old people or a shrine, so that he will tell you where to send your child to, to find treatment'

If the child will have life, the child will survive with the treatment of the herbalist.

What does the treatment of the herbalist look like, what will he do/give? *'He is the one who will look for the medicine. You don't know what he will give, but he will now it.'*

'It is the traditionalist himself who will give the herbs to you and you the mother will now send it home and boil it well. So it is that herb water that you are using to bath the sick child and drench a cloth in the water to press it on the child's joints or body. And you will even be giving the herbs to the child to be drinking anytime you are bathing him or her. So definitely the child will defecate it [both the sickness and the herbs] out.'

'Actually yes, sometimes it does work. If only God says the herbalist is the right person to heal your sickness. Sometimes you can send a person to a hospital and they will tell you that they don't have that kind of sickness medicine in the hospital so that you will send the patient home and treat it in a local form'

'Sometimes you can even send the sick child to Naleregu hospital, but they will also tell you to treat it local way'

Are there certain foods that would be advised to eat or not eat? *'Yes it can happen. They will tell the child not to be eaten this kind of food' 'Sometimes the traditionalist will tell them that if the child gets well, you should stop giving the child shea butter, goat meat and sheep meat.'*
'Sometime the herbalist does give a specific food that the child is not supposed to eat.'

Did you have a child with these symptoms in your community? *'We don't have, but we normally see those people.'* *'It's not in our community but we know it exists.'*

Picture 2

All women agreed that this child was not healthy

'This child is not healthy, a child's body cannot look this way and be healthy' 'Because all the body is swollen'

What sickness do you think the child has? *'It is the same sickness as picture 1' 'We do not know what sickness it is, if it is the same or not.'* *'If you want to know you just send it to hospital or to a traditionalist, just the person of who God says is the one who can treat him' 'It can be 'YɔYU' [which, in the Dagbani-English dictionary is translated as 1. A disease that causes swelling 2. Carbuncle 3. Anthrax] 'Sometimes you send it to the hospital and they will use their equipment and take the sickness out of the body'.*

How did the child get this sick? *'We don't know what will make a child to become sick. It is only God who will tell.'* *'Sometimes it can be caused by witchcraft or it can be normal sickness that hospital people can treat'*

How do you make the decision to either go to the hospital or to the local healer? *'You would go to hospital first before taking another option. Even if your child's body is hot, they will definitely tell you to send your child to the hospital.'* *'In a situation like this, you cannot prevent yourself from going to the hospital'*

Picture 3

This child is also not seen as healthy.

What could be wrong with this child and what can be done about it? *'It can be like KpaYa [which, in the Dagbani-English dictionary is translated as 1 pain in the loins: rheumatism, 2. Fever; malaria, 3. A swelling of the knees; elbows or wrists, 4. A lump in the body of a person]. This sickness can let the child not to have appetite' 'If you send a child like this to the hospital, there they will check and find what sickness is wrong with the child. Sometimes the hospital even needs to operate the child.'* *'If they are not going to operate they will be giving the child medicine. They will give you days that you are supposed to come to the hospital and take the medicine for the child'*

'If they cannot treat they will leave everything to God. Other women said you should give everything to God but you should also continue the treatment'

Picture 4

'The child is very skinny. It is the same sickness as the previous but this one she is skinny. The body is too lean but the head is very big. You have to send it to the hospital. There they will use their machines and check on the child'

'We don't know what is wrong, unless you sent the child to the hospital so that they will use their machines and check the child.'

How serious do you think this sickness is? *'We know it is a serious sickness' 'Every sickness is the same, if your head is itching you and someone is having a sickness like this, you are all sick because you are all suffering from pain.'*

What would help this child? *'If it happened like that you should sent the child to the hospital at the starting of the sickness. Because if you don't sent it from the start, you can't just see your child suffering and be sleeping.'*

Could certain types of food treat this child? *'You should give this child good food' 'We don't know the kind of food to give to a child because we just have TZ. We do not have the money to be buying all kinds of food.'* *'Unless you sent it to the hospital, there they can teach you about the kind of food you can give to the child, like beans' 'If you don't sent a child to the hospital you don't know exactly the kind of food to give to the child. But if you sent the child to the hospital they will prescribe the food you are supposed to give like beans and vegetables and so on.'*

'If they prescribe that food and the child is having life , the child will surely survive.'

'We don't know exactly what to do unless God tells us, or people like you [the moderator] who have the knowledge If you teach us we will practice it'

Kpana - Mothers

Number of participants: The group started with 6 mothers, but after a few minutes 4 other women joined.

Setting: Same room as the grandmothers.

Observations: The group was at one point interrupted by one of the husbands who stood in the door opening and also wanted to contribute to the discussion. This led the women to fall silent and listen to and agree with the man. But after the man was gone, the discussion restarted and the women seemed more open to talk. There were also some babies who started crying, but this did not seem to really distract the women.

Note: The second part of the interview, where we talked about food taboos and prescriptions, the grandmothers joined, because later at the day they had other activities.

Picture 1

What do you think when you see the picture? Do you think the child is healthy? *'The child is sick, it is not healthy' 'It is the stomach that we are looking at. If a child's stomach is looking this way, a child is just sick' 'We don't know the name of this sickness, but it is like swallowing. '[as a direct response:] You cannot tell that because you are not in this child's stomach. You should have kept quiet so that she [the moderator] can tell us the kind of sickness' 'if you see a child like this, if it is not that they have poisoned the child, it could also be a sickness called zongo. ' Or might be just that it is God who want the child to be like that'*

How could you treat this child? *' It can be done by those who are having the medicine' 'Some people are there who can treat it' 'Some old people can treat it. And some people always send it to the hospital'*

Can it also be treated at home? *'Yes, some local people like a herbalist can treat it' 'Sometime too they can be treating it in the local way and it can get to a time that the local healer says that he cannot treat it anymore and that is the time that you go to the hospital. Then sometimes the hospital people can treat it'*

'You can be treating it in the local way and it will not change then you go to the hospital. But sometimes in the hospital they say that they cannot treat it and then you go to the local healer. That's how all people do it.'

How do you decide where to go with the child? *'If you are treating it in a local form and you do not see any changes then as a normal person you see that that person cannot treat it and you go to the hospital. But if you see changes you know that they can treat it and you just continue that treatment'*

How does it come that some children have this sickness and others don't? *'We are all created in different ways. Our blood is not the same' 'It is like the way we are sitting here. Some might have a sickness, and others don't. Everybody has its nature, it depends on you, the human being'*

What can you do if your child had poisoned food? *'You will know from the swallowing of the child's stomach. If you get to know that it is poisoned you send child to the hospital or treat it in the local form' 'First if it is like that, it is poisoned, you start with the local form' 'There are some people who have the power to remove the poison from the child's stomach. If the local man told you that the child is well you can than send the child to the hospital for check-ups.' 'Normally you know a child is poisoned by sending it to a juju man or traditional leader. They will look at the child and just see that it is poison' and there are some locals, some of them will tell you they can treat it and you just trust that they will remove it but they cannot. Then they will need to remove it in the hospital'*

'As for sickness it is not every time that the human being has to be sick. Some poisons are there, if someone poisons you, if that person just sees you he will be afraid of seeing you because he just knows by seeing you that he is going to die'

'For the way the child is standing it shows the chance of the child being alive is limited. Because if it reaches this way it is only prayers which can save the child'

Is there something you can do to prevent the disease [translated in the wrong way: what more can you do for treatment?] ? *'It is only God who will tell you what to do'*

Picture 2

'See how all the body parts are swollen. It is not healthy, this is a serious sickness' 'See how the legs have swollen' 'The legs, stomach and hands all show that the child is not well. And he is even small and the body is big like that'

They didn't have a name for the sickness. *'We know but we cannot say it, because you can think that the sickness is the one that you know but it might be something else' 'We have never seen a child having it'*

What would you do if it is your child? *'You will send it to the hospital' 'At first you will be treating it in a local way. If it gets to a time that it cannot be treated anymore the fellow will advise you to go to the hospital'*

Is it dangerous? *'Yes we know it is serious'*

What do you think will happen to this child? *'The child will die, because from the look of the legs, it shows that the child is serious sick'*

How could a child get this sick? *'It is due to God' 'It is the will of God' 'Sometimes it can be caused from the child eating dirty things like the sand'*

Are there some children who are at risk of getting this? *'Yes, there are. Some children can grow more than this child but have the same sickness as this child is having'*

Is there something that can be done to prevent it [which was translated as 'treat it in another way]? *'Yes, a fellow cannot just be sick and you do nothing so you always try something else and God will help you. But sometimes God will say the child is not for you and the child will finally die'*

What can you do to prevent a sickness like this? *'There is something that you can do. You go to someone who add you knowledge so they then you know how to treat it' 'If you don't be seeking knowledge form other people, you cannot do anything'*

'You send the child to hospital for treatment if the local form does not work' 'Some sicknesses are there, if it is just meant to kill a person. Even doctors will not determine the kind of sickness that it is' 'The treatment of a sickness always depends on the person who knows what kind of sickness it is'

'You will just be treating it. If people ae telling you this person knows how to treat persons, you send your child there. You will not just be seeking help from one person. If no one can treat it you will now give it to God'

Picture 3

'Is there is life, a sickness like this can be treated. This child is not well' 'From the look of this child it shows that the child is not well' 'The child does not look healthy' 'The body is swollen

and the child is looking scary, a horror, like an evil thing' [women laughing and one of the translators responded that you cannot say that about a child]

'The way they can treat this sickness is by seeking help from God'

What kind of treatment can you seek? *'You will be treating it in a local way and also be treating in the hospital' 'It depends on the kind of sickness. Malaria you cannot treat in the local form, but if the child is poisoned you can. So it depends on the kind of sickness'*

How do you make the decision between treating it in a local way or in the hospital? *'It might reach a time where the person might need blood or drips. In a local way they cannot do that, so then you go to the hospital'*

How long will it take for a child to get this sick? *You will know from the child's way of eating. If the child first was eating plenty and now it has reduced half you will get to know that the child is sick' 'Everybody observes the child so if you want to know how long the sickness has been it can be done by you observing the child very well' 'If the child is growing lean you will know.' 'Sometimes maybe in the night the child will sleep the whole night but if sickness comes the child will wake up in the middle of the night so that is how you know that your child is getting sick. The behaviour of the child will tell you if the child is sick' 'Even if the doctors are treating it, and the child is becoming well, you the parents you will know it by observing'*

Picture 4

'It is a skeleton' 'Even the pants are not her size' 'The child is seriously sick. The body is not even there again, it is just left with the head' 'It is just bones which are showing. We would call it a skeleton'

How did the child get this disease? *'Unless you sent the child to the hospital for the doctors to determine the kind of sickness that is wrong with the child. We don't know what is wrong' 'It is only in the hospital that they can treat it, so we don't know the cause' 'or in the nutrition centre they will know'*

Can you do something about it at home? *'As for this sickness, it is just in the hospital that you can treat it'*

What is the treatment they would give at the nutrition centre? *'The nutrition centre does have some medicine and also some food so that they will be giving to the patient and the patient will boat up his or her body'*

It will be treated with medicine? *'Yes, medicine can treat it' 'It is not medicine alone, in the hospital they will have their techniques they can do and the patient will eat again. As for here, it is only TZ and porridge they will give. But in the hospital and the nutrition centre they will have toys and special food, that can make them eat better'*

Why is it that they cannot treat it in the home? *'You [the nutrition centre people] are having the knowledge. 'If you teach us and we have[money, resources], we would treat it but if we don't have we cannot do it.*

Do you think food can treat this sickness? *'Yes it can' 'It can be prevented if the child is eating healthy'*

Can it be spiritual disease? *'No, it cannot be. Because we Dagombas it is only herbs that we are having. Because from the look of this child the body is very hot, the child is not well again. In the local form we only have herbs but in the hospital they can give you more knowledge. For example that you can bath the child with a cold, wet rug' [from the answer I would get the impression that the question is either translated or interpreted wrong]*

How can you know if a certain disease can be treated in a local way? *'Of some sicknesses, you as a Dagomba, you can see it.'* *'Nowadays they are just treating it in a hospital'* *'If you are treating it in a local form it can come to a time that the child will not be having blood and then you send it to the hospital'*

What do you know about malnutrition [translated as nutrition centre sickness]? *'If you don't go to nutrition centre you will not know the place'* *'We don't know anything about it but we know that the kind of food that is given there always helps the patient to become well'*

Is malnutrition a big problem here? *'If somebody is pregnant and go to the hospital they have to examine the lady well so that the person will give birth to a healthy child. If they do not check well the person will give birth to an unhealthy child'* *'If you give birth to a child, the child always becomes malnourished from you the mother because of you are not giving proper care and the child will not be eating healthy the child will become malnourished'* *'if you are not eating healthy and not will give enough breastmilk, it will not be healthy for the child, he will not grow well'*

'Some women are there, their milk is not pure for the baby so sometimes the baby will be taking dirty milk. It can make the weight of the child reduce'

Do you have malnourished children in this village? *'No we don't have'*

How does that come? What do you do to keep your children healthy? *'We always pray to God'* *'It is just God who protects us from that thing'*

Food - Pregnant women

If someone is pregnant, what kind of food is she supposed to eat or not to eat? *'If a women is pregnant, she is not supposed to be eating cold food'* *'A pregnant lady is supposed to be eating hot food, beans, malt, and milk and eggs and alefu'* *'you can prepare stew or fry stew with alefu and eggs, if only you are rich'* *'If you are rich you know which food is good for me and my baby. But if you are not rich, it is only the TZ that you are supposed to be eating'*

Why is it that the food should be hot? *'For the child to be developing [moving and turning in the stomach] If you are taking cool things the child is not, moving and turning around.'*

Are there other foods a pregnant women should be eating? *'The food that she is not supposed to eat is mango, bambara beans and she is not supposed to be eating maize. Because that will not be adding health to the body of a women'* *'The reason why you should not be taking the beans, is that the child will not be breathing well if you give birth'* *'Maize is not good for a pregnant women to be taking'*

Should pregnant women eat different than non- pregnant women? *'Yes there are foods which are meant for pregnant and also foods for non-pregnant ladies. Because a pregnant lady can eat banku or something like that and the baby will not like it and will make the pregnant lady to be vomiting, and you will not take it again. But a non-pregnant women can just take it.'*

'There is also useless food, the baby will not like it. And the mother will vomit. You are not supposed to eat all sort of things'

Should she be eating more? *'If only you are healthy you should be eating plenty and if you are not you should be eating small small'*

Some people are there, that if they are pregnant, they would really like to eat Farinkasa [a soft, edible white stone] sometimes some pregnant ladies they just eat that, and drink water that is all' *'But it is not really food, it will not give you anything and you could even fall sick'*

'I am speaking from experience because if I am pregnant that would be the only thing that I am taking. But if I deliver than I would not like the farinkasa again. I know it is not good for my health but it is the only thing that I like to take so that is why'

Are there foods a pregnant lady could eat to get a healthy child? *'There are foods like TZ, beans, malt, milk. But only if it doesn't disturb your health. If you know that you eat it and you will not vomit then it is good.'*

If you would eat fruit in the beginning of your pregnancy and you would vomit, would you then not eat that fruit for the rest of your pregnancy? *'Yes, you won't eat it again' 'In the beginning in the pregnancy you might not like the food but it might get to a time that you will like it. But it can be that you child is not liking it and you will vomit again so you will not take it.'* *'When I was pregnant, it was only cowpeas that I was eating. I tried all the food and I did not like it. So that was all the food that I was eating until I gave birth. The smell of any other food could make me vomit. Now that I have given birth I am eating all kind of food again'*

What do you think about breastfeeding? *You are supposed to eat plenty so that your child will be satisfied with the milk from your breast. If you eat healthy it will also help your child to eat well.*

What kinds of food are good for breastfeeding mothers? *'If you are having, there are food that you are supposed to eat for you and your child to be healthy and have breastmilk like beans, vegetables, ajuju, fish. That will make you healthy for the baby to be sucking. But if you are not having you are just eating the food that God gives you. You know exactly the foods, but if you are not having you cannot give' We are not having [money, resources] so if we give birth you can just give TZ. We know the food that is good but if you lack money TZ is the only food that is abundant' 'You can buy meat and add to your soup. It will add your health but if you are not having you cannot do that'*

Do you think there are cheaper sources? *'Yes, pear, kodu, banana. But nowadays you have to buy it because if you don't have the tree' 'And also pineapple' 'Nowadays if we have it we would sell it.'*

Are there foods that will help to produce breastmilk? *'Millet will add milk to a breastfeeding mother, if you grind it and prepare it as porridge'*

Are there also dangerous foods if you are breastfeeding? *'Sometimes you can just eat plenty but they will not satisfied. Sometimes you can just give birth but you will not having milk even if you are eating well. Those things always come when God says you should have it'*

What kind of foods will help the child to grow? *'TZ, only TZ, and porridge.'* *'Oncethe stomach is full, it doesn't matter what kind of food you are eating. If the stomach is full and you eat, you will grow. Eating balanced diet will not mean that you will grow better than someone who is just eating TZ' 'Yes TZ is what we normally eat, but we are just healthy'*

What if you have everything to give, what would be good? *We would give eggs, because you are always able to provide.'* *'Nowadays, the time that they always give eggs is when the child needs blood. And then there is a specific time that you stop that again'*

If a child is sick, is the child supposed to be eating or not? *'Yes we know it is good. If the child is eating, the child will become healthy again'*

And if the child doesn't want to eat because it is sick? *'You would give haemoglobin syrup in that case. If you are giving that, it will led the child to get appetite again'*

Is there something they could do to help the child to eat? *'You will be begging the child, but you cannot force the child to eat till his satisfaction, so you will be bossing. You will try your possible best and be cooking food that will be healthy for the child'*

Is there food that can be harmful? *'There is. If you kept food down and flies have settled on it, and you will give it to the child it is not good and will harm'* *'Giving unprotected or uncovered food can cause harm to the child'*

Lalegu – Grandmothers

Number of participants: 4 grandmothers

Setting: a room with an open door

Observations: The women contributed equally and there was no major interruption. One of the women fell asleep halfway the discussion, but she was woken up by the other women. Another observation was that both the woman and the children looked more healthy than in village 1.

Picture 1

All women agreed that this child was not healthy.

'The stomach is to big' 'If a child is sick like this, you let the child to eat or drink millet, or beans' 'If you are giving a child with a stomach like this millet, it will let the child to be healthy' 'If you keep on giving millet without laziness, it will help' 'If you cook beans you should add fish and it will help the stomach to reduce'

Do you have a name for this disease? *'Yes there is a name but I don't know it, because none of my children have ever experienced it' 'It is a disease but I don't know the specific name'*

How did the child get this sick? *'If the child is not eating well it can be this way.' 'or it may be due to piles'*

What would be the best treatment? *'You'll be treating the child with the local medicine and you will be adding the millet'*

And what would be a reason to go to the hospital? *'If they continue with local medicine and millet but you see it's not working then you go to the hospital. There they might say that they do not have treatment or cure and send you home'*

They have never had a child like this in their community and they did not know the cause of it.

How does it come that some children do get this disease while others don't? *It normally depends on how we treat the children. Sometimes It might happen that your child wakes up and you don't check on him, whether he burshed his teeth and you just give him food. It can all lead to diseases' 'some of them take no proper care, by letting them wear dirty clothes again, even after the child had a bath. That can also make you sick'*

Picture 2

First response when looking at the picture: *'Look at the stomach' 'The belly, head and legs are all shiny' 'the child is not healthy' 'all the body is just swallowed'*

They did not know a name for these symptoms. *'If I was facing a child like this I would start with the local way. If that would not work, I would go to the hospital' 'If a child is having a sickness and the local healer doesn't help, I would go to the hospital. The local way is just for managing the sickness [reduce it small] and the hospital can cure it.'*

'Normally it can be 'kpaya', then you start with local way before hospital'

They had not seen a child like this in the community but they have seen it at the hospital. *'we do see it happen. It can catch anyone'*

'If it happened to a child like this, they say the child should stop taking salt and fresh meat [unsmoked]. Normaly this does help.' 'You need to practice patience and care for the child'

'You should also give the child Guinness' 'But if the child becomes healthy again, it will probably never like salt and fresh meat anymore'

Picture 3

The child's eyes are swollen and the way she is sitting, you can see she is sick.

It's all the same as the others'

How would you treat? You would use the same method. *'You start with hospital'*

What is difference between spiritual healer and hospital? *'In the hospital they would check on your health position first to find a solution before they start treatment' 'But in the house they can just start it at any point in time without knowing the problem of the sickness'*

'sometimes the reason why they start with the local treatment first is that maybe the sickness can start in the middle of the night whereby the hospital is very far. You would try the local medicine so that you can get a well night to sleep. In the morning you can go to the hospital' 'my view of treating it in the local form first is that the sickness can happen on Sunday whereby some hospitals will not work on weekends'

Does this village have a herbalist? *'No' 'But the father of the child may be having the ways to treat the child'*

What could be the cause of this disease? *'Sometimes it's just God who will give a disease' 'It may be due to piles'*

Would it be good for this child to eat? *'Eating is good, if only the child has appetite' 'A child cannot be looking this way and you will not give her food'*

Are there special types of food that would be good? *'child no 2 we would give special food, like millet and beans. That is also for this child' '*

Picture 4

'This child is seriously sick, she is not well' 'She is very skinny' 'Her bones are even showing' 'we don't know the name of the sickness'

How did the child get this sick? *'It's due to God' 'because if you see a child like this, you know a child is sick. It is already there'*

Have you seen a child like this before? *'Never'*

What would you do with this child? *'You take the child straight to the hospital'*

Are there thing you could do at home? *'If a child is just looking this way, you cannot treat it in the local way, unless you go straight to the hospital' 'Treating it in the local way would not work'*

When is someone at risk of getting this disease? *'We don't know the cause.' 'One can just be sitting down today very healthy and in the middle of the night a child can fall sick. The next day it will have grown lean, due to sickness' 'If that child is having cholera (vomiting and diarrhoea) till the next morning, the child can grow lean like that' 'Even if you have that symptoms in the night, maybe if you wake up in the morning and your body will be shivering and you will be very hungry'*

What do you do if a child has diarrhoea and is vomiting? *'You have to go to the hospital, there they know the kind of medicine to give you'* *'We don't know when a child has diarrhoea, unless you are the mother of the child'*

Would it be good for this child to eat? *'Yes, it is good if only the vomiting stops and the child is willing to eat, then you should give the child food'*

What is the child still vomiting/having diarrhoea? *'Sometimes the child is having 'YɔYU' [which, in the Dagbani-English dictionary is translated as 1. A disease that causes swelling 2. Carbuncle 3. Anthrax] you can give the child food but the child will still be vomiting'*

How long do you think a child can go without food or water? *'you can't just deny a grown up child like this from taking water. A child from 6 months you can stop giving water, but not a child this grown'*

How does it come that some children are fat while others are skinny? *'Everybody is how God created him or her'*

Does food have anything to do with it? *'If a child is like in the picture and you are cooking a well-balanced diet the child will become well. But if you are just unconcerned, the child will still be like that'* *'sometimes you can cook for the child but the child won't eat. Then you know the child is not well'*

Do you think the child became so sick because it didn't get enough or the right foods? *'If you are sick and you don't like eating but only want to drink water, it's not also good'* *'but if a child eats plenty but drinks small water, is somehow good, if only the child is not running diarrhoea'*

What would happen if you would not give a healthy child enough food? *'If you are having a child and you cook for you and the child to eat, and the child will not be eating, you yourself would be worried. You want to know what is wrong with the child'* *'If the child continues without eating she or he will be seriously sick or the child will die. A human being cannot be there just without eating food'*

What is the cause of diarrhoea? *'Sometimes a person may not like the food, or the stomach will not like it, it will force the person to be having diarrhoea, due to 'YɔYU' [which, in the Dagbani-English dictionary is translated as 1. A disease that causes swelling 2. Carbuncle 3. Anthrax]'*

Are there things to prevent a child from getting diarrhoea? *'Yes there are foods'* *'like TZ'* *'sometimes somebody's stomach might not like cassava flour but they will add it to corn flour and make TZ from it. The fellow will then be forced to have diarrhoea'* *'sometimes if you cook a soup and you kept plenty pepper inside, you can have diarrhoea as well'*

Do they think diarrhoea is dangerous? *'Yes'*

Do they know about malnutrition? *'We don't know'* *'We don't know, but sometimes they will tell you in the hospital that you need to send your child to the nutrition centre'*

How do you recognise a child with malnutrition? *'Sometimes you can determine the symptoms of the sickness by the weight of the child. You can feel it when you are about to bath a child because the weight will not be the same'* *'You are always with the child. So if the child is changing, you will definitely know'*

How do you know if the weight is normal? *'Because you are the one who is always taking care of him. Of you are playing with him you will realise it, because the weight will not be normal as first'*

Are there other signs? 'You can also know it from the child's eating, maybe if it has reduced you know that the child is sick'

If you see that the weight is going down. Is there anything you can do about it, apart from going to the hospital? *'There are ways in which your child's weight will grow. 'You will be cooking a well-balanced diet' 'It is not that you should force the child to eat but you should try your possible best so that the child will eat small' 'Millet, beans, vegetables' 'Some children are there. If you take your time to be cooking that food for them they will get well without attending the hospital'*

How does it come that a child's weight sometimes goes down[translated as keeps going down]? 'If it just happened that way and the child is not eating, the child will die' 'Sometimes the hospital will not change anything and the weight will still go down. If the child is not having life, it will die' '

How does it come that sometimes the hospital doesn't work *'sometimes there is not more medicine in the hospital, it has finished.'* *'sometimes they will prescribe medicine for you to go to town and buy.'* *'We do see that happening in hospitals' 'because one of her nephews child was once sick and when they send the child to hospital, they were about to give drips and they asked them to go to town to buy medicine and come back. But they were not having money to buy that medicine and finally they took the child to the house because the hospital people are not ready to help them' 'When they brought the child home they send it to kofi drug store and told them to problem to find solution. They were the people who prescribed the medicine to them and they treated the child'*

They did not have malnourished children in their community. How does that come? *'It is there, but not in our community' 'It is in the hospital where we see children like this' 'There is only God who will now the place where the child is coming from'*

Do you think it is a big problem in Ghana? *It is always a problem for everybody if a child is sick, not only in Ghana but everywhere.*

All pictures are from Nutrition Centre, these are all (severe cases) of malnutrition. If a child is eating healthy food, a child can be prevented from becoming like this.

Could you do at home what the people in the Nutrition Centre do? *'You will not know what to do unless the Nutrition Centre people tell you'*

What do they think it is that they need to learn? *'Unless you are the people who come and teach us' 'you can teach us how to keep our child healthy' 'You can add more knowledge to what we already know'*

Food

Pregnant women

What would be good to eat? *'There are certain foods, but we don't know because we are not pregnant. If only someone who is pregnant is around to tell us the kind of food that she is eating and is not causing problems for her' 'sometimes you can be pregnant and you will be eating something every day, but someone else will eat it and be vomiting. So it's a different condition for every pregnant women' 'some of them would only eat TZ because that is the only thing that they can afford'*

'There is food which is good for your health if you are pregnant, like eggs, vegetables' 'If you are pregnant you know there is an organism in your stomach so you will find healthy foods to eat so that you and the baby will be ok, like egg to give you blood and vegetables to fight

disease' 'You will know healthy food but you will not have money to afford it, so if you are just having anything you eat it, like TZ with ajuju.'

'because we don't have money in this village' 'It's poverty why we are not eating healthy food' 'So you just leave everything to God' 'If you look at her you will know that she is not healthy' 'We cannot give healthy food, unless you are the women and suffer to find it'

'If the woman is sick we would sometimes send her to a herbalist and he will tell her what foods she should and should not eat'

'It's not only meat that is healthy. If you find a food and you will know that it will be good for your body you will eat it. It's not only meat that makes a human body healthy'

Breastfeeding

'It is only the milk what is helping' 'breastfeeding is good for a child because it is only the milk that is a child's food'

'is the child reaches six months you start with extra food and you stop if the child is 2 years' 'even if children reaches six months they sometimes do not like the food' 'it is porridge that I will be giving'

Are there foods that the mother should or should not eat during this period? 'Yes you are supposed to eat hot TZ and porridge when you are breastfeeding so that it will give you milk for the child to suck and also become healthy.' 'They eat it when it is hot because they want to eat so that the milk will come' 'If you eat it when it is cool it won't give you milk, you would be satisfied but it will not give milk to suck' 'some people don't like eating too cold foods'

What can you do if you do not have enough breastmilk? 'you can be buying ceralac, or lactogen for the child to be eating' 'yes there is something you the mother can do for the child to be eating the lactogen while sucking again' 'If you are healthy and eat very well, it will help' 'Or you cook bra very well, add groundnut to eat and stir through the TZ, the breastmilk will increase'

Growing child

'It is the child who will determine the food that it will like and eat' 'you can be cooking something very nice but if the child doesn't like it you need to make something else' 'so if you keep changing food you will know the food she will like'

What if the child doesn't like TZ? 'you should be giving something that the child likes' 'or the child will drink porridge'

What if the child doesn't like anything or does not want to eat? 'then you know it is the child who doesn't like food' 'if the child doesn't like it you just leave the child like that. If the child is healthy you just leave it like that. But if he is not healthy you will find means for him to eat.'

What if the child is sick and doesn't want to eat? 'you force the child to eat' 'if the child is not well, but still refuses to eat, you just leave him. If he becomes well she will eat again'

Lalegu – Mothers

Number of participants: 4

Setting: a room with an open door

Observations: The discussion had to be stopped once because the chief wanted to know more about the purpose of our visit. It was a bit difficult to restart the discussion again, but later on it went well. Apart from this and some crying children, there were no other major interruption. One women clearly took the lead and was most of the time the first person to answer, although the others also contributed. Towards the end, both the woman and the translator obviously got tired.

Picture 1

'The child is not healthy.' 'the stomach is big' 'maybe the child is not eating good food'

What kind of food should the child eat? *'the reason why the child's stomach is not looking healthy is because maybe the food that they are giving the child is not cooked well or not clean. If you are to give a child food you are supposed to look for clean utensils and cook it. And you must always be balancing the child's diet by giving the child beans, vegetables and so on'*

'If you look at the picture you even see the child vomiting' 'that is not vomiting, he just keeps his hand in the mouth'

'The reason is that sometime the child can just wake up in the morning you the mother do not have parental care because you have not bath the child and just keep the child roaming in dirty clothes. This could also add to diseases or make the child sick.'

'The 'YCYU' can make a child look like this'

What kind of help does the child need? *'The help that they can give. If the parents are not having and somebody who is rich and healthy can help them by looking after the child or giving them money to send the child for treatment' 'If they went to the hospital and it has not changed they treat it the local way. But if they are not having they should find a way to find someone who will help them'*

What kind of herbs would help? *'Nowadays the local way doesn't work so if a child is looking that way just send a child to the hospital' 'The best way for the child to get well is to send it to the hospital because if you are treating it in the house and it is not working you should send it to the hospital.'*

Did you have it like this in the community? No

Could a spiritual healer help this child? *'the local treatment cannot treat it like the hospital people would treat it' 'they have techniques to see the kind of sickness the child has. They will scan the child and see what is wrong'*

Picture 2

'The child is not well at all'

What happened to the child that made him so sick? *'He is not well' 'for this sickness you just need to go to the hospital' 'if not in the hospital you will not know exactly what is wrong with him' 'sometimes small children will fetch soil and be taking it' 'if the child is taking sand and the dirt inside can make the stomach to swallow'*

The women have never seen a child like this in their community *'If you go to big hospitals you see all kinds of sicknesses so it does exist'*

What does the child need? *'in the hospital you can see a child who is looking exactly like this and they will be given him blood. So the cause might be that the child doesn't have blood(anaemia)' 'sometimes some children if they lack blood in their body they do look like this, their body will just swallow' 'piles can make a child like this'*

Do you think you can treat this sickness at home? *'If a sickness reaches this level you cannot treat it in the house, you need hospital' 'if hospital people cannot treat it you can treat it in the local way'*

'if your place is not having hospital the local treatment can also help' 'The local way, if not the person has having the medicine he cannot treat it, you need to send it to hospital for them to scan and see' 'local treatment are doing it in the name of God'

They have ever seen a child like this in the hospital. *'I have ever seen it, but they didn't treat it in the hospital but in the local form. God stood by their side and the child became well again'*

Is there something you could do to prevent [translated as treat] this? *'only the hospital can change a situation like this'*

Picture 3

'This child too is sick because he is not well' 'what we can see from this child is the way the head looks and the eyes' 'it is a different sickness than the second picture' 'the difference is that if you look at picture 3 it is the head and they eyes that are swollen. For picture 2 it is all the body'

Could it be the same cause? *'it is different symptoms but it is the same sickness' 'you also need to go to the hospital because there is now medicine in a local form which reduces swallowing in a body'*

Some people say that this child is so sick because she has been cursed. What do you think about that? *'Sometimes it is poison that they will give to a child. Or it may be witchcraft.' 'Sometime it is not that they have poisoned the child but it is just a normal sickness.' 'If it is poison the swallowing will be more than what is in the picture' 'but if it is a normal sickness the swallowing will not be all that much' 'If it is poison you will send it to a herbalist or a traditionalist but if they cannot treat it, then you will send it to the hospital' 'If you send it to the hospital and they are also saying they cannot do anything and you will be praying to God to heal the child and you will be continuing to treat it the local form'*

How do you make the decision between the hospital or a local healer? *'If it just happened like that you would just send it to the hospital but maybe they cannot treat it. But you want your child to be healthy so you will search and find somebody to help'*

When would you first try the hospital? *'The reason why you go to the hospital first is that if you have never seen your child in that situation you are supposed to send it to the hospital. So that they use their knowledge and equipment to find the problem' 'It is the hospital people who truly help because everybody knows there are doctors there. The local people sometimes are liars because they will know they do not have the medicine to help you but they will spend your money although it will not help you because your child is still the same, nothing has changed' 'If you find out that the fellow is lying it is then that you send your child to the hospital'*

Picture 4

When they saw the picture there was a sign of shock, some of the women were even laughing

'The nutrition centre is having all kind of children' 'It is the nutrition centre sickness'

'For this one, the herbalist cannot treat it' 'sometimes it is out of ignorance , some would say that they have poisoned the child not knowing that it is malnutrition' 'if a person is just sick, it is just best to go to the hospital first, if they cannot treat it is then that you know to treat it in the local form or any other method'

'As for these sicknesses, only the nutrition centre people can treat it. The first 3 pictures can be treated by a local healer, but not for this one'

They have never seen it before. 'One child was facing the same sickness. They were just treating it in the local form and not sending it in the hospital. When they later realised that it did not work and send it to the hospital, the hospital people referred them to the nutrition centre. But because they delay in the house so much it was too late and the child died.' 'I also know a story like that' 'The parents were not concerned about the child. If treatment does not work you need to change treatment.'

'Some people do lie. They can lie that they can treat it but they cannot, you just have to go to the hospital'

'the reason why the child parents where not concerned might be because they were poor and they were afraid to send the child to the hospital and spend much money'

'taking good care of your child is to prevent sickness' 'it might be that the parents are not giving the child food properly. Maybe they give and the child is not satisfied but they just leave the child like that. 'any normal child is supposed to eat more than 6 times a day, but parents only give 3 times a day and a child can grow lean like this' 'or the child will not be up to the age of eating and the parents are forcing the child to eat'

What kind of foods are good for children? 'Sometimes the child will want to eat but there is no food' 'If a child is still small you don't have to be giving the child heavy food, but you are supposed to give light food like cerelac' 'or you can add fish, millet, groundnut and blend them together and be using it to stir porridge and TZ for the child' 'Sometimes you may want to give your child food but there is no money.' 'If the child is eating good food, the child will become well' 'If the child is now well, you can send the child to the hospital for them to see if the child is now ok, if you are not sure'

How does it come that there is a difference between children's in their weight? 'sometimes that is how the physical make-up is, it is just how God created them'

Do you think it could be dangerous for a child to be skinny? 'If you see your child like this you will be feeling sad because maybe she was fat when you gave birth but if she is now grown like this it is not nature' 'If the person is growing lean, the person is not healthy and you have to send the child to the hospital.' 'If you are seeing changes in your child you just have to send it to hospital because if the child was fat but now is lean you yourself know that the child is sick so if you have health insurance you sent the child straight to the hospital. Nowadays it is health insurance that works, but if you are not having it, and you are giving the child food, there is nothing else you can do because you don't have the money. You need to give the food that you are also eating, that is what you can do.'

At what point do you need to go to the hospital? 'Immediately when it starts you need to go to the hospital, you do not wait for her to suffer or for sickness to enter the child.' 'you know exactly when it starts because if it was that the child was eating a lot but not anymore you will know.' 'If the child is not sleeping well in the night you get to know that there is something not

well' 'So, if you are having you send the child to the hospital. If you are not having you struggle hard and find the needs.' 'If you keep on struggling to find the money and needs that is the time that it will enter the child and it will get this way like in the picture'

Food

Pregnant women

Are there foods that are good for pregnant women? 'Yes there is' 'If you are pregnant, you are supposed to be taking food like beans and alefu' 'you should use the alefu and make a stew so that if you want anything you can use the alefu stew and eat. It can bring health to you'

'There are some foods which a pregnant women should not eat like cold chilled water, you shouldn't be taking it' 'For our community, if you are pregnant, you are supposed to eat hot TZ' 'they know the food that they will eat that will make you, the pregnant women, healthy. If you are not having you will be eating TZ every day. If you can afford you can even buy meat and cook soup' 'For our side, if you are pregnant it is not good for you to be taking mango's and even if you are drinking too much cold water it can affect the child.' 'if you are taking too cold water, if you even give birth, it will give the child convulsions'

'Mango is not good because if you give birth to the child the child will have gbani [1. A kind of eczema 2. A disease of yaws 3. An insoluble problem)' 'up to now they are not accepting it, if you are having money you should buy banana, pear, but don't buy mango' 'If you are just pregnant and you took mango, you yourself will realize your stomach will be paining you and that is affecting the child' 'Also Bambara beans is not good to be taking'

Breastfeeding

Are there foods that help you to produce more breastmilk? 'We don't know' 'We don't know the food you shouldn't eat' 'we only know that if you give birth and you are supposed to give breastmilk you should be clean and neat'

Growing child

What should a sick child eat? 'If your child is not growing well and the child doesn't like eating you are supposed to send it to the hospital. If it is TZ that you are giving and only having, you can send child to hospital they can find a medicine they can give so that the child can start growing again. If you are not having the money to buy the kind of food the child likes you should use the money to go to the hospital to get medicine so that the child can have appetite again'

Kpatinga – Grandmothers

Number of participants: three to seven grandmothers participated in the group discussion and another 8 grandmothers were in the same room, but did not contribute anything.

Setting: In the main room of the chiefs palace, which was a spacious round room, with open doors on two sides where people would walk in and out all the time. We asked for a more private setting but the chief insisted that it took place in his room so that he could listen what we were doing. He was present during the entire discussion.

Observations: At some points the chief also wanted to contribute something, or he had other visitors which could have distracted the grandmothers. There was one grandmother who kept taking the lead, and would not always also let other women contribute. However the moderator raised this issue several times, it did not really change.

Picture 1

This child is not healthy according to all the women. *'The way the child is standing shows the child is not feeling well 'in Dagbani some call it chua (piles)'*

Did you see it before? *'Yes, we have been seeing it, if it happens to a child it always affects that child a lot' Does it happen a lot? 'it normally happens to children a lot, even sometimes it can let the child's body swallow to an extent that water will be coming out of the body'*

How does a child get this sick? *'This sickness they are now getting to know it, God is now standing by our side and it is now reduced because Gushegu people have now started something called the nutrition centre. It is only the nutrition centre where they can treat it very well.' 'We don't know the cause, it's only God who can tell.'*

Do you think it is dangerous? *'Yes it is a serious sickness. Because it can lead to death if a sickness is like that.'*

They don't know what has caused the sickness. They heard that if a child has these kind of symptoms, they should send the child to the nutrition centre. *'It is the NC that helps us with these kind of sicknesses now' 'At certain times they didn't know how to treat it, the hospital and traditional healer would not work and the child would finally die. But now you can go to nutrition centre'*

'It is a serious sickness because at first a child was to be having this the child would normally die. But nowadays if it happens and the child has life and God says that the child will survive and you take the child to nutrition centre the child will finally become healthy.' *'Even in our community, we have sent children to NC and they are now ok.'*

What kind of help does child need? *'At first we were just practising, the herbalist would give you plants. You would go home and bath the child and it would not be working. But now that the NC is there you can send your child there and your child can become healthy again.'*

'nowadays we believe that it is NC which can treat this kind of children. They are the people who have come out and the situation is now better.'

'Even when we were using the herbs, it was not changing, the child would always die and they would bury the child'

'Normally for the local treatment it is just luck, sometimes it works and sometimes not but now we believe it is only the NC who can cure that kind of sicknesses.'

'If a child is having it you would send it to nutrition centre. I believe that nutrition centre is now the good place to go.'

What do they do at the nutrition centre that works so well? *'At the nutrition centre it is not only porridge that they give. If child is sucking breast, the nutrition centre would prepare milk and they will be adding food for the child to be taking. And they will be giving medicine. The food that they give and the medicines is the one that helps to cure the sicknesses.'* *'The nutrition centre does have some milk. The milk will help to defecate the sickness out that is in the child's stomach.'*

Is there something that can be done to prevent this disease? *'Nowadays because Gushegu is near, they will send the child there instead of Karaga. When Gushegu was not having it was Karaga that we were going.'*

Would going to the nutrition centre be better than going to the hospital? *'It is in the hospital where you would go and where they will give the idea of going to the nutrition centre'*

'If you don't go to the nutrition centre, then in the hospital they give the child PlumpyNut and give you the advice to prepare yellow corn. That is with corn, millet, groundnut and beans' 'If God likes the child, and says that the child's sickness shouldn't get to bad, the child will survive with the food and then there is no need to go to the nutrition centre. But if the child is not improving they will tell you to go to the nutrition centre.'

Picture 2

'This sickness shows how the body gets swollen to an extend that water comes out. We dagomba's, if it reaches this state we would bury the child because you cannot treat it. Because it is this way, if you are treating it in a local way it will not help so then you need to bury the child, if you have never heard of the nutrition centre. If it happens and you go to nutrition centre they will know the kind of medicines to give so that the child will reduce. Before, when we were only eating local food, we did not having sicknesses like this. But now that we try to be modern and eat modern foods, we have sicknesses like this'

What happened that it got this far? *We don't know what exactly happens to make a child like this. If a child started like this, we will be treat it in the house but if it continues you would send your child to the hospital. But then the sickness has already entered the child. Even if they send this child to the hospital and they don't have the medicine, they will send you to the Nutrition Centre.'*

'We have been seeing it. My granddaughter was sick, and it was in the nutrition centre where they found the cure. The sickness still does exist in our community. We just know it is the nutrition centre people who can treat it. The child is very well now, even if you give the child two bowls of TZ it will finish it. The nutrition centre helped them to cure their child's sickness.'

What are the signs that show that you need to go to the nutrition centre? *'If in the night you don't sleep because of your child's sickness you definitely have to go to the hospital. They will treat it.'*

Can only medicine cure this sickness? *'We don't know, it is always food that they add that can make the people healthy but we don't know what that is'*

How do you make the decision between going to the hospital or to a traditional healer? *'The reason why some people practice the local treatment is because they do not have money to go to the local hospital. They will only get money after rainy season, from their farm' 'They are afraid to go to the hospital where they could tell them to buy medicine. That's why they would treat it in the local form' 'The people who start early with treatment and go in a rush to hospital, they are the one who have money. But for our community, we are poor. That is why sickness is always disturbing us'*

Is local treatment free then? *'We always do that because some of the people who treat in the local way are family members. They will do it free, without taking money'*

'Sometimes if it starts and they are not treating it fast that is why it ends like this. Or sometimes people in your family they will all help and everybody will struggle to help you and find money to pay for the treatment'

Picture 3

'The eyes are very swollen. I think it is the same sickness as the previous picture' 'We just know that if a child reaches this state you need to send it to the nutrition centre'

'It is the same because they are all having swollen body' 'If you see a situation like this you send your child to hospital' 'It looks like rash'

'I think it is not the same sickness. It is a form of sickness whereby the whole body skin is peeling. This sickness if it is to start you see that the child will have fever every day and be sneezing and has a running nose. You see that the skin will become hard and dry. If a child is having that sickness, in early days they would advise that you should stop bathing the child. Even if you just stopped bathing, if God said the child will survive, it will and the child will start eating again. But sometimes, the child would die. But now scientist have brought something that they should go to the hospital to inject against is. So it is no more in existence now.'

'If that sickness happened to catch a child, every sickness that is in a child's body will start to show up so it is very dangerous. At first the child's hair will turn grey. The eye lashes will too and the child will start looking like something else. The body will become hot. You should not even invest in the child.'

'But technology has come and they started the injection. But if you now send a sickness to the hospital they will advise to bath and injection and the child will sneeze all the sickness out'

'At first when it was happening they were advising not to bath, the sickness could come to a community and try to kill children a lot'

Picture 4

'Sometimes that sicknesses it can just catch a child and the child will not be well and it will happen to another child as well. It's an airborne disease'

They don't know what causes the sickness. *'It is airborne sometimes your child might not be having it and if you visit someone your child will get it.'*

'We are sure that the first three pictures are from the nutrition centre, but for this one I am not sure it is' 'They normally call all people for injection. For picture 4, this girl didn't go for that treatment and that is why she is like that' 'we are not aware that they also treat sicknesses like that in the nutrition centre' 'a child can be looking like this, the child will be very skinny. We normally send that child to the nutrition centre again.' 'that sickness we would call malnutrition. It is always advisable to go to the nutrition centre for treatment' 'but the sickness I called earlier on I don't know that they can also treat it at the nutrition centre' 'we also know that eating a well-balanced diet food adds health to a human being. But in our place we are not all that rich so what we know is just TZ' 'sometimes you can even see the TZ and know the right ingredients to use for the family to like it. But you might not have the money for it, like for fish. So we need to cook it without fish inside. 'It is st due to poverty why we are not eating a well-balanced diet'

What kind of food do you think is good for a child to be eating so that the child will be healthy? *'Mango, fish, beans, alefu and palm oil. And also porridge with sugar. But due to the poverty you will know all this food but you do not have the money to buy it. Or sometimes you just go and buy tea leaves without milk but you put sugar inside. You will not even have bread. If you are having money you can cook beans and add egg with it' 'The healthy food can also be that you cook beans properly, without adding salt and you be frying your palm oil and add it to the beans. That can also let a child to be healthy.'*

What is not healthy for a child to be taking? *'If a child is still small and not reached 6 month you are not supposed to give heavy food like TZ. Only porridge, the child is supposed to be taking that. If the child reaches 6 month you can look for vegetables like ajuju and cook it well with plenty fish and palm oil and stir the TZ to be soft so that it will be nice for the child to be taking.'* *'If the child is small, it is only porridge. Inside the porridge you add dried fish. You grind all together and be using it to be preparing it for the child to be taking every morning.'* *'If you are to prepare the porridge you should put water on the fire and add salt. And you salt your porridge and pour it inside for it to cook well.'*

I heard that here if you keep on giving eggs, the child will be a thief. Are there also different kinds of food taboos? *'It is a lie that eggs will turn them into thieves' 'the reason why you shouldn't use egg is because we are poor and you are giving everyday egg but there will come a time that you will not have money for it and the child will be crying for it' if you are rich it is no problem. In the morning if the child drinks porridge you are supposed to give the child eggs.'* *'Some foods are there but sometimes you don't know about bad foods and you will just give it to the child. But if you come again it can add to our knowledge'*

Are there different foods that can make a child to become thief? *'Yes, meat and fish'*

What is good for a child to eat when a child is sick? *'If a child is sick, you are supposed to give the child food' 'If the child eats, the body will become well' 'If you are not giving a child food, it will add sickness to the child' 'Beans, Alefu, Egg, and also you add gari to the beans and you put the alefu stew on it' 'You use palm oil to cook the stew' 'If the child will eat this it will become healthy.'*

What kind of food is good for a pregnant lady? *'If you are pregnant and you wake-up in the day, without finding food to eat, it can lead you to feel dizzy' 'If you are pregnant and you will just wake up you should stir TZ and eat the hot TZ. That will add health to your body' 'If you just wake up in the morning, you should eat tea with egg' 'In the old days, if you were pregnant and they knock you [ritual], the house people will tell you that you need to eat the hot TZ every day'*

'They always advise them that they should go to the hospital for check-up. And if they go they will always give medicine. In the olden days they would not eat anything and they would take the medicine without taking food and later when her appetite comes, she will buy food and eat. But that was always causing harm to the lady and the pregnant child. Cause if you are not fond of eating, how will you give birth to a healthy child? '

'If you wake up in the morning you take hot porridge, that would also be good.' *'Normally if you eat the porridge in the morning, in the afternoon you can go and buy beans and palm oil and cook it, add egg and take it as your lunch'*

Are there foods that are dangerous when you are pregnant *'Yes it is there' 'Normally sometimes some women are there and they cannot eat oily food, like rice with oil, if she eats it she will be vomiting.'* *'The smell of things can make the pregnant lady to be vomiting. So she would not like this, for example fish'*

What kind of food is good for a breastfeeding mother to be eating? *'If you are pregnant and you want the breast to come you should eat hot food like hot porridge and hot TZ' 'normally*

there are some women, they can give birth and the breastmilk will not be coming.' 'Or you get Nido [milkpowder] and put it inside hot water and take it, You will just be sweating, and then if you put your child on the breast the milk will come'

What kind of food would not be good for a breastfeeding lady? 'Sugar' 'Breastmilk does normally depend on you the human being, on your blood' 'Some people can eat anything but milk will not come, only when they eat hot food. Other people can eat anything and milk will just come. It is the nature of you.' 'If you eat cold food the milk will not be coming.'

Is breastfeeding good? 'Yes we know it is good' 'But the breastfeeding always has a limit. At six month you should be adding food. And even if the child likes porridge. If you keep on breastfeeding with the porridge, it will adding the child weight.' 'If the child doesn't like porridge, you should just be breastfeeding the child. But if the child likes the porridge, you should set a time for yourself that you know when to give porridge and when to give milk.'

Kpatinga – mothers

Number of participants: five mothers participated in the group discussion and another 12 women whose children were in the same room, but did not contribute anything.

Setting: In the main room of the chief's palace, which was a spacious round room, with open doors on two sides where people would walk in and out all the time. We asked for a more private setting but the chief insisted that it took place in his room so that he could listen what we were doing. He was present during the entire discussion.

Observations: At some points the chief again wanted to contribute some things, or he had other visitors which could have distracted the mothers. There were several children in the room, who sometimes needed their mothers' attention, which made them less able to contribute to the discussion.

Picture 1

'The child is not well. The way the stomach is, it is sickness that made the stomach to be like this' 'In Dagbani if a child's stomach is like this we call it a form of worms to be in your stomach and they will advise you to deworm.' 'If that worms are there, you will be looking at food and like it but you will not be having appetite to eat it'

'It is only the nutrition centre people who are having the cure because if my friend's child was sick they went to nutrition centre and got healed. So if my child is sick I would also go to the nutrition centre without treating it in the local form'

'If you are treating it in local way and it is not doing, then the hospital is always the best place for treatment. But if it is not working there that is the moment that you will shift to local ways'

How does it come that some are at risk of getting it and some are not? *'That sickness, it is normally not everybody who is having it. Sometimes you can give birth to a child and God will not let you to keep the child so it depends on the person' 'Every lady and what is in the stomach, so it depends on the one who is supposed to give birth' 'Sometimes the cause is in the stomach of you the mother, that is where the sickness is coming from'*

Is there something to prevent the others from getting this sickness? *'Yes, we know. At first we didn't know that if you give birth you should go for check-ups but now we know that you need to go to the hospital regularly. There they can also see it if your child is reducing weight and they will tell you what to do for your child to gain weight again' 'Some people were there they would just be praying and not be going to the hospital but you cannot know if you are healthy or not. Sometimes you can send a pregnant woman to a local hospital, they will now refer them to Gushegu hospital'*

What can you do to prevent it? *'You first have to give everything to God, but it normally comes out from some of the mothers, because a child wakes up in the morning, you have to take responsibility by preparing food. You shouldn't put in an unclean bowl, so that it will prevent the child from becoming sick' 'Don't put food in the same container, you should first wash it properly.' 'Don't use the same bowl again. If you go to the toilet you see that there are flies there, they will all settle on your food. If flies touch something it is not good. We should always try to cover food properly.' 'That can cause the stomach and other body parts to be swollen. Sometime our children's sickness always depend on us the mothers. Some of the mothers do not care about their children'*

Picture 2

'All the body parts have swollen' 'The stomach is swollen, and the legs, the cheeks.'

Have you seen someone with this sickness? *'Yes, the children do have it'*

What treatment did they give? *'If it normally catches a child, you know that you should go to the nutrition centre if you know that it exists'*

How could they help children like this in the nutrition centre? *'We have seen people sending their child there. Some children are there they give birth and they do not know how to sit but if they bring them to the nutrition centre and they come back they know how to sit.'* *'In the nutrition centre they always give different kind of foods. In our houses we don't always have that kind of food but in the nutrition centre they always give that sort of food'* *'The reason why we do have the food but it does not always solve the problem is because we lack the knowledge that the people in the nutrition centre have.'*

What are the signs you need to see before going to the nutrition centre? *'You go directly the time that it starts'* *'If it started like that and you go early, you will find treatment and the treatment will be easy. If you wait too long the sickness has already entered and the child will suffer a lot and you cannot do anything anymore and the child will die'* *'The reason why we would go to the nutrition centre is that they always cook well-balanced diet and rich food. It is not only TZ they are giving but they always change food'*

Picture 3

'The way the child looking, it is not healthy' *'It is the same sickness as the first picture'* *'No, this one is different from the other pictures. From the look of the other pictures, their stomachs are big but it seems for this child that it is only the head that is swollen'*

Where would you go if this was your child? *'Sometimes it can be transmitted. If this child is in the house and poops, flies come and will settle on it and after that on the food of your own child, it can also make your child to look this way'*

Is their way to protect you child? *'Yes by keeping all your utensils and the child neat, always.'* *'Normally if a child is like this, you the mother just take her to the nutrition centre. But if you have given birth but your child is healthy you never know about the nutrition centre. You only get to know about it through serious situations'* *'Sometimes too this sickness always happens through the parents. You transmit it to your daughter. If you have it and you breastfeed it can also get the child to become sick.'*

What treatment does this child need? *'If this happens, in our local form they always give the herbs. Some children are there, you bath them in the pots of the herb water and nothing will change. But if you just sent your child to the nutrition centre it will change'* *'The time that they always do the local treatment is if you don't sleep well and you wake up and you tell it to the husband. He will tell you that you have to go to the bush and you will come back and give the herbs to the child. You will letting the child to be taking the herbs water and you will be bathing the child too'*

How do you make the decision between going to the hospital or to a local healer? *'Sometimes it depends on the child. Some children their body will be swollen. In the middle of the night their temperature would be very high. If the child is having high temperature you cannot treat in local way you just have to send it to the hospital'*

Would it be best to treat it in the local way sometimes? *'We don't know, it is only God who will know. Sometimes you can even send it to that place and it won't change. But if you send it to the nutrition centre they would even treat your child freely and do not take anything from you. So you should not waste your time and treat it in the local form'* *'That's is why we go to the nutrition centre, we know that they treat it for free'* *'It is only NC people who can treat it'*

Picture 4

'It is malnutrition that has made the child looking like this.' *'The child is very skinny.'*

'Some people call it djoua. At first they would also call it another kind of sickness. Of someone poops, inside the anus it is like intestines and they will come out. That if at first it will happen the mother will bring out hot water and push it back. But nowadays it does not happen' *'At first when hospitals were not there we were treating it in a local form. In the local way they would go and bring herbs. They will burn it, give it to the mother. The mother would grind it, and cook soup for her. If it is the good medicine it will stop. It will come to a time that the child will defecate and nothing will come out again'* *'At first if you try it the local way and it is not working it is then that you send the child to the hospital.'*

Is there a way to prevent someone from getting it? 'Nowadays it has changed due to the nutrition centre. Because one lady from our community send her child to nutrition centre and they found treatment for their child. When the mother brought the child home they were seeing changes'

How do you know if it is a sickness that the nutrition centre can treat? 'When people were not having technology it as in a local form that they were treating it but now that we are in a modern system we go to the hospital rather than treating it in a local form' *'Now if sicknesses start we always run to the hospital.'*

What do you know about breastfeeding? 'Normally the growing of a child depends on the mother if the child gets breastfed well, then the child's weight will be normal. If the child is not breastfed well, the weight will be not all that good.' *'If the child reaches the age of 6 months you should be adding porridge. But if the child don't like the porridge then you give breastmilk alone'*

After six months, what food do you start with? 'Normally I would go and buy bones and cook it like a soup and stir TZ so that the TZ will not be all that heavy. If I cook light soup for three days I would now change with ajuju'

Are there things that you are not supposed to give to your child? 'There are some kind of foods. Sometimes they can say that beans is good, but the child would eat it and run diarrhoea. So it depends on the human being, the kind of food that you like.'

Are there other foods that are not supposed to be given to a child? 'Yes because if you are giving eggs and the child grows up the child becomes a thief.' *'The same is for meat. It is not good to be giving a child those foods at early age because it can spoil them. And mango will led the child to be having diarrhoea.'*

What food is a pregnant lady supposed to be taking? 'Vegetables, ajuju, bra,' 'If you cook the ajuju, you should add plenty of fish' *'You should be eating vegetables, papaya, orange, mango, plantain. It will all add health to your body'*

What kind of foods are not good for a pregnant lady? 'Cold food, pregnant women should not eat cold food because it will not let the child to be developing'

What kind of food will help a child to grow? 'It is God who will make human being to grow. And also fruits'

Is it good to give a child breastmilk? 'Yes because we always see people who are not having breast but if the husband is not buying them lactogen it will make the child to be reducing and not growing' *'You would stop it when the child is two years'*

When do you start with giving your child other foods? 'At the age of six month you give the child other foods like fruits.' *'If the child reaches one year you can give it bones, beans'* *'If the*

child is six month you can be giving porridge and look for beans and soya beans to blend it together.

If a child is sick, what kind of food is good for the child to be eating? 'If the child doesn't like food, you can go and buy malt. You'll be giving the malt and be forcing him to eat the TZ again. A child that is not growing well is a problem for you the mother'

Why do you think malnutrition is such a big problem in Ghana? 'It is a big problem for us because if your child is not well you will not be sleeping in the night' 'Sometimes it is poverty which made our children to be sick' 'It is poverty which made this kind of sicknesses to be here in Gushegu. If poverty would not be in Ghana, we don't think we would have these kind of sicknesses' 'We don't know what to do, it is just the nutrition centre people who could help us'

Attachment 4 – Focus Group Discussions Analysis

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Picture 1 – First response	If a stomach looks like this, it means that the child is sick. The child is even sucking the hand.	Is the stomach is like that, a child is just sick.	The stomach is too big.	The child is not healthy, the stomach is big. If you look at the picture you even see the child vomiting	The way the child is standing shows the child is not well.	It is sickness that made the stomach like this
Picture 1 - cause	Sometimes a child with a stomach like this people may say the child had poisoned food. But sometimes we don't want to admit it.	Stomach is swallowed. Can be poisoned, could be zongo, or could be that God wants the child to be like this.	If a child is not eating well. Or due to piles. Depends also on how you treat children: proper care, attention and hygiene	Stomach is big. Maybe not eating good food. Not cooked well or not clean. No parental care, leave child in dirty clothes	It is piles. Let's the child's body swallow, even until water comes out of the skin. Only God can tell the cause.	Form of worms that are in your stomach
Picture 1 - treatment	They would always send it to somebody like a herbalists. The herbalist can give the medicine and God will help the child to recover'	It can be treated by those who have the medicine. Some old people can treat it, and some people always send it to the hospital	You will be treating the child with the local medicine and you will be adding millet. If you see it is not working, you go to the hospital.	The child needs the help they can give. If they went to the hospital and it has not changed they treat it in the local way. But if they are not having, they should find a way to find someone who can help them. In the hospital they can scan the child and see what is wrong.	At first we would treat it in the local way but the child would normally die. Nowadays we believe that it is the nutrition centre which can treat this kind of children	It is only the nutrition centre who is having the cure.

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Picture 2 – First response	'This child is not healthy, a child's body cannot look this way and be healthy' 'Because all the body is swollen'	See how all the body parts are swollen. The legs, stomach and hands all show that the child is not well. And he is even small and the body is big like that.	Look at the stomach. The belly, heads and legs are all shiny. All the body is just swollen.	The child is not well at all.	This sickness shows how the body gets swollen to an extend that water comes out	All the body parts have swollen: the stomach, the legs, the cheeks.
Picture 2 - cause	It is only God who will tell.' 'Sometimes it can be caused by witchcraft or it can be normal sickness that hospital people can treat'	Don't know what it is. It is the will of God that the child is this sick. Or it could be that the child had eaten dirty things like sand.	Can be kpaya. Don't know the cause	If you don't go to the hospital you do not know what is wrong. Sometimes small children fetch soil or sand and eat it	Also swelling until water comes out. Don't know what causes it.	-
Picture 2 - treatment	If you want to know you just send it to hospital or to a traditionalist, just the person of who God says is the one who can treat him'	At first you will be treating it in a local way. If it gets to a time that that does not work, they will advise you to go to the hospital.	If it happened to a child, they would say the child should stop eating unsmoked fish and salt.	In the hospital you can see a child that is looking like this and they give him blood. If a sickness is at this level you cannot treat it at home, you need the hospital. If the hospital cannot treat it you can treat it in the local way.	If a child started like this we would treat it in the house but if it continues you would send your child to the hospital. If they don't have the medicine there, they would refer you to the hospital	If it catches a child, you know that you should go to the nutrition centre if you know that exists. There they have the good kind of food.

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Picture 3 – First response	The child is not seen as healthy	From the look of her eyes it shows that the child is not well. The child is looking scary, like an evil thing.	The child's eyes are swollen and you can see she is sick on the way she is sitting.	The way the head looks and they eyes. It is (only) the head and the eyes that is swollen.	The eyes are very swollen, I think it is the same as the previous picture. I think it is 'gbuni' (a form of sickness whereby the whole skin is peeling	The way the child is looking, it is not healthy. It is only the head that is swollen.
Picture 3 - cause	It can be like <i>Kpaya</i> . This sickness can let the child not to have appetite'	-	Same as the other two. It may be due to piles. Sometimes it is God who will give a disease.	Same sickness as two. Go to hospital cause there is now local treatment for swallowing.	Swollen body. Looks like rash. Gbuni.	Child probably had unclean food, can be transmitted through flies that touched the food of the sick child and then co to the healthy child's food and that can make the child sick. Or transmitted through breastmilk
Picture 3 - treatment	'If you send a child like this to the hospital, there they will check and find what sickness is wrong with the child. Sometimes the hospital even needs to operate the child.' 'If they are not going to operate they will be giving the child medicine.	The way they can treat this is by seeking help from God. You will be treating it in a local way and also be treating it in the hospital, it depends on the kind of sickness.	You would start with the hospital. If the sickness starts in the middle of the night, you would try the local medicine so that you can get a good night sleep. The father might also be having the ways to treat the child	You also need to go to the hospital because there is no medicine in local form which reduces swallowing in a body	At first when it was happening they were advising not to bath the child. But if you now send a sickness like this to the hospital, they will advise to bath the child an give an injection and the child will sneeze all the sickness out.	In the local form you will give herbs, but that would not always work. But if you just send your child to the nutrition centre it will work.

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Picture 4 – First response	'The child is very skinny. It is the same sickness as the previous but this one she is skinny. The body is too lean but the head is very big	Even the pants are not here size. The body is not even there, it is left with the head. It is just bones that are showing, we would call it a skeleton.	The child is seriously sick. She is very skinny.	(Sign of shock and laughter) It is the nutrition centre sickness.	-	The child is very skinny
Picture 4 - cause	You have to send it to the hospital. There they will use their machines and check on the child'	You don't know what it is, until you send the child to the hospital.	Due to God. Don't know the cause, can just happen in one night.	Some say the child is poisoned not knowing it is malnutrition. It is the nutrition centre sickness. Maybe lack of care, not giving enough food. Or you have no money	Do not know what it is, but know that it is airborne. They normally call all people for an injection. This girl didn't go and that is why see is this way.	Malnutrition. Or some people call it djoua
Picture 4 - treatment	<i>If it happened like that you should sent the child to the hospital at the starting of the sickness. Because if you don't sent it from the start, you can't just see your child suffering and be sleeping. You should give this child good food</i>	It is only the hospital where they can treat it. The nutrition centre does have some medicine and also some food that will help. And in the hospital and the nutrition centre they have their techniques to let the child eat again. They have toys and special food.	You cannot treat in in the local form, unless you go to the hospital.	As for this sickness, only hospital people can treat it. You go to the hospital first, if they cannot treat it is then that you treat it in the local form or any other method.	We normally send a child like this to the nutrition centre.	You first try it the local way and after that you send it to the hospital. But now that we are in a modern system we go to the hospital rather than to treat it in the local form.

Attachment 5 – In-depth interviews transcriptions

Interview with female traditional healer

Note: This traditional healer was selected by asking around. She lives in a small village close to Gushegu-town. She was interviewed in her home-setting. During the interview, three other women were also sitting in the compound, who also added some information. At one point one young man also passed by, who made some remarks.

What kind of healing do you do? *I treat people the local way. It all depends on the kind of sickness that is wrong with the fellow.*

Where did you get the knowledge from? *It was my grandparents who were treating people. When I was born they taught me the kind of medicine I need to use to treat people. In the olden days if your parents are treating or having powers over sicknesses, if they give birth to plenty children, it is the firstborn they always show the powers of treatment. They can also send you out, or send you to the place where the herbs are. They show you the leaves for the sickness and they will tell you the different kind of sicknesses, and the herbs that you are supposed to be using.*

What do you do if someone comes to you for treatment? *The spirits who dwell in me will tell me what to do, or what kind of sickness is wrong. Or I use our culture to determine it. Sometimes it is goat blood that you need to use and add to the herbs. Or it can be sheep. You inform the people so that they will buy it. Or you tell the person that it is money that they need to give. So that I can go and buy things to add to the medicine. I am also sick these days, so I also need to treat myself. If I had money, I would have built rooms that if the patient comes, the person sometimes has to sleep at my place so that I can determine the sickness. So if I have money I would build rooms. There is someone in Savelegu, she is the person who showed me the medicine to treat the people and it is the grandfathers who showed me how to treat.*

How often do people come to get healing? *I can't count the number of people that I have been treating.*

How do the people know about you? *If somebody is sick, and goes to the hospital and gets treatment. Next time that someone else is sick, they would also go to the hospital, because they heard about the person that got healed. They will ask people: where did you get healed? And they will send the person to me. And then if somebody comes to me, I will plead to the ancestors to help me. Sometimes a sick person will go to the hospital and the people there would ask the person to treat it in the local way. If the patient comes and God says the patient should die you can maybe treat them but if the person will not live you cannot do anything.*

What is it that makes your treatment work? *It is the ancestors powers who always help me to treat people. And I will ask the ancestors and they will tell: go and look for this medicine.*

Is it something you can teach other people? *It is the traditional culture and ancestors who will determine who is to take it after me. You cannot show anybody. Sometimes a patient can come and she will be claiming that she has no money. If the treatment is with me, I will treat it for free. Or the way I show people. Maybe if someone is having the money to buy the medicine, I will prepare it nicely and give it and the person will take it. Somebody like you, if your stomach is paining, I will be able to prepare the medicine and give it to you people. Actually, the local treatment it has a form of envy. People will envy you. If you can treat somebody, the person who has poisoned the other person can be coming back to you and kill you. That is why I am sick, enemies are now attacking me, because I healed people.*

Is there a difference between sicknesses that you can treat and sicknesses for the hospital? *You are trying to let me lie. The person can be coming to me and be going to the hospital. I cannot say what I can treat and what not. Some sicknesses are there and you send it to the*

hospital and they cannot treat it. If the hospital people cannot treat it they will tell you that you should treat it in the local way. If it is not a hospital sickness, you treat it in the local way. The person who has told that, the fellow will definitely become well. But if the fellow will not be listening and still be treating it in the hospital that person will definitely die.

What kind of diseases can you treat? If the person explains the sickness, you can treat it. The fellow will explain: this is what is wrong with me. She will explain herself, before I will find the solution and heal her or treat her.

What are the things that you need to know from the person before you can start a treatment? It is the person herself who will explain. It is like if you go to the hospital you will tell the doctor what is wrong. It is the same thing with me. Maybe the person didn't sleep because of the sickness. If he comes to you, you will give medicine and if that evening the person sleeps again, you know that it works and you will keep using it. But if it doesn't work you need to change to something else. I am also going to the hospital, because I am sick. It is a hospital sickness. There are some sicknesses not meant for me to treat.

How do you know the difference? Poison for instance, you can only treat it in a local way. If the poison has not yet spoiled the intestines, the body or entered too much, you can treat it. But if it has entered the sick person too much you cannot treat it. The way a human being stomach is, there are some parts if poison enters it, you cannot treat it anymore. Even if the white people also look at it, they will get to know that they cannot treat it. Even if you are treating it in the local way, it will let the person to die.

But you only know if you tried and it doesn't work? That is the way treatment is: if the person comes and I have the medicine and it is changing it is good. If I treat it and it is not working I would advise to go to the hospital. That is how sicknesses are. Sometimes somebody can be sending someone to the hospital and they cannot treat it, they will send it to me. It is the same.

[comments made by a young men who was passing by the house and listening to the interview: In the olden days, if you would go to the hospital, they would wrap a band around your arm to check. It is at that place that they will determine the sickness that is wrong with you. In the olden days they had professional doctors, but nowadays the doctors they have are all fake doctors, or they do not have the knowledge to work in the hospital. Because first if they pumped your arm they knew the sickness that was wrong. But now you go, they will not know the sickness that its wrong, you will spend money but you will not find treatment]

This is the way local treatment is. When he was small they were doing it, and the father also used local treatment. But they were not taking any money for it. Somebody might be sick and the fellow will become well and have no money. That person will come back later, to thank you, they can give corn, millet or things like that. Nowadays, those who are treating people, they will charge before they treat. That is just the way they do it.

We went to one village to treat people and when we went there, the patient sickness was too much. When we came home they did not give anything. The person can even promise to give you a sheep but do not do it. One man last came, we treated him and he promised that he would give something. Up to now he has not yet brought it. Witches are just envy me. That is why I am sick and witches are trying to kill me. A man's father last promised that if I would treat his son he would give me a house but up till now I didn't get it. The house where we are now is the house where we treat people.

The village where we last went, in a day people could die 20 times there. So they called me to help them but didn't want to go so I sent my brother, but he went and came back and nothing changed. Also a doctor went there, and it didn't help. So then I went there and they got healed. When I got there they promised to give me sheep but up to now they have not brought it. So the local treatment is now having people that you will treat but they do not even

bother to give you anything. And now I am sitting here empty-handed. If they would have given me something I could have built a place for the sick people to stay.

Can you also prescribe herbs without sacrifice or without asking the spirits, but with knowledge from past experiences? No. Some treatment is there you will sacrifice and for others you will not sacrifice. Sometimes the fellow will give you money to buy the fowl. Sometimes the patient people can give you money to buy a fowl and sacrifice to the ancestors. When it was the fire festival, I treated somebody and the fellow brought a fowl with 12 pieces of yam to celebrate the festival. But there are some sicknesses which do not need fowl or sheep, but it needs goat. It depends on the sickness.

So it is the herbs that you use to treat? Yes, I always know which plants can treat which sickness. Sometimes you would burn the herbs, and then the child eats it or baths in it. Or sometimes you give fresh herbs or you grind them. It is the healer who knows how to burn it.

Do you also give advice about food? Yes it is the local treatment who knows it, and the hospital people sometimes also say it. If you don't stop taking foods that cause sickness, it will increase the sickness. It is the ancestral spirits one who will tell. They can tell you to stop eat certain foods, and if you are healed you can eat them again.

Do you sometimes treat children who look like the children on these [see attachment 1] pictures? Yes we do treat that sickness but nowadays people don't believe us, because technology has come so they don't believe much in the local treatment again. So I would advise to go to the hospital. If I treat it and it wouldn't work they say I am a liar so I ask them to go to the hospital. Now bad people have mixed who will be lying and saying that they have the medicine but they don't. Sometimes you know that you can treat the person but you are still afraid that it won't work and they will call you a liar.

How would you treat someone like the girl on picture 4)? The local treatment is having the herbs that you give to the child so that the child will take it and defecate the sickness out. Nowadays they will know that you can treat it but prefer to treat it at the hospital because they always like to be spending money before they get treatment. But at first the ancestors would also treat it and the person would defecate it out.

I gave birth to a child like this but the child died because we didn't know how to treat it. The time that I gave birth I was not treating people so we carried it around but did not find treatment and the child died. At first I feared to treat people, when my parents were giving it to me. When it was clear that I was the one who had to take over my parent I didn't like it, so all my children died. But when the tenth child was born, I accepted that I could treat people, and then all my other children lived. At first I thought: I don't want to accept taking over, I am too young.

Does it happen sometimes that a treatment does not work? No, since I started treating, nobody has ever died in my house. I always pray to God that that thing should never happen in my house, even if the person is to die, that the person should go to her own home.

If someone is pregnant, could they come to you for advice on how to be healthy? Yes, we are all having the medicine. Some medicine are there, you will not give to the pregnant lady while she is still carrying. You will give it on the day of the labour. Some are there, you will give to the lady so that she will give birth. Some people are there if they are pregnant and still menstruating, but then the child will not grow. There are some medicine you can give to the lady and then the menstruation will stop.

If a young child is sick, or does not want to eat, is there something you could do? You can treat it in the local way. You will be bathing the child with the local herbs and the child will get appetite.

Do you know about certain types of food that are good for children if they want to grow? Yes, TZ. *It is only that that I know, but if the child is not hungry you leave the child. If the child is healthy, it will be eating. But if it is not healthy you will treat her. In our local way, we call it paya (boils), you give the child medicine for that. If it is not working you use ginger to put into the anus.*

What could you do if a child is losing weight? *If the child is not growing it is coming from the mother. If the child eats well, the child will be well. But if the child is not eating well, the child will definitely be sick. It happens if the mother is not taking good care or giving the child food.*

A lot of children are sick because they are malnourished. Do you recognise this? *The child is sick, that is why the child is not eating. If the child is sick and the mother doesn't want them to treat in the local way then you leave the mother to go to the hospital.*

How can we together concur malnutrition? *If you are to be helping me, I can also help you. If you teach me the procedure you follow and treat people, I can also help you by telling. Or you also give me something, if this person comes, this is what you are supposed to give. I can prepare the medicine down, if you people need it you can come to me. If I would have money I would built more rooms so they can stay with me and I can treat them. And also I don't always have the money for me to prepare the medicine down, some medicines are there you need to sacrifice before preparing it and there is no money to do that.*

Interview with Male traditional healer(s)

Notes: This interview was held after the interview with the female traditional healer, who referred us to these men. They were also interviewed in their home setting. Most of the answers were given by the older man (who also was the main subject to interview), at some points his son added some information.

Where did you learn to treat people? *The local treatment, we learn it from our fathers. They were the people who treated other people and gave birth to me and showed me how to do it. Because my parents did it, that is why I am also doing it. You cannot be born to parents like that and just leave it. But if they bring a patient and you know that you cannot really treat it, you tell the patient that he needs to go to the hospital. It is not everything that I can treat. But if they brought someone that I am able to treat, I would treat it.*

Can you both heal people? *No it is only me the father who treats*

What does your treatment look like? *We cannot just show what medicine we always use. The medicine you use at the nutrition centre, can they ask you what it is and then prepare that medicine?*

But if someone comes here, what would you do? *The way you always know the different kind of sickness, that is the same thing we also know. We will get to know by identifying it. If it is the legs which is swallowing you will know, if it is chest pain you will know. Or if you bring unfertilised women, you will get to know. Or sometimes the patient will tell you what is wrong with her, and then you will know, like it also works in the hospital. And then you know the kind of medicine you can give.*

How do you know what medicine to give? *Aids for instance, we don't know anything like that. It is you the white people who call it aids. But in Dagbani we also have a name. If a person will come to you, that person will tell you how it happens to him or her. It is then that you find a solution for it. Or if someone's chest is paining, in English terms you would call it asthma. In Dagbani we refer to chest problem, and we do have local treatment for it. But if someone would come and say he has asthma, you would not know what to do, although it is the same. It is the same thing as a patient going to hospital, it is the sick person who has to explain herself, how the sickness is disturbing her. If the sick person will not explain the doctor can just give medicine but it will not work.*

How do you decide on what medicine to use? *Aids, for example. At first it was in existence, but it is now that you in the hospital has realised it and call it aids. But at first, it might pretend you to be healthy but then you grow fat, after that you would grow lean and then die. In the olden days if someone would have aids it would take two years for the person to die. But now, a person often dies within a year. And also like other sickness there, if you are to treat it, you need to know how it has happened before you can treat it. If it is that it was a bad wind that has blown on you, you then know how to treat it. You should have asked us what sicknesses we always treat. Then we can tell more.*

So what kind of sicknesses do you treat? *If a women is there and she is not giving birth, we can let her to have birth, so we treat that women to give birth. And also convulsions, we can also treat that. And if a child does not want to walk, if it is to become a cripple, we can treat that child to be walking. And also piles. Sometimes it depends on the person. Sometimes it will happen and the person will be having cheeks. And also if the person is coughing, or has chest pain.*

If a women does not give birth and comes to you, what do you do? *If you for instance, if you are not giving birth you should tell us then we can give the medicine for you to eat and then you will give birth. But I cannot specify the name of the medicine.*

But how does it work? What kind of rituals do you use? *The medicine is in the forest. So I will go and look for it and come and then burn it so that the person uses it in porridge or soup and be taking it. Or it can be the herbs that you bath in. Or you use ginger and put it in the anus.*

How do you know what herbs or plants to use? *There are many trees in the forest but it is you the person who treats who knows it.*

Could you give the knowledge to someone else? *How is it that you can treat but others not? At your place there are many people, but does everybody treat? Everybody has their own knowledge.*

But is it something you can teach to others or is it a gift you have? *We always learn it. It was my father who told me. But if you want to be a local healer, you should find someone who is also treating so that you learn it from that person.*

Could he also teach his children or grandchildren? *Because my parents were treating it, it was them who told me how to treat. So I would also use it and show it to my children.*

How would you treat for example oedema? *It is the herbs that I would always go and look for and give to the patient so that the patient would eat some and be bathing in it.*

Are herbs the only treatment you use? Or would you also use magic, or body cuts or something like that? *Some treat that sickness but I do not. The way they cut the body, I do not do that. Sometimes you would give medicine to that person.*

What do you think about the hospital and the fact that you both try to treat the same sicknesses? *The way I always treat if somebody is sick and they are to take the person to hospital and it is disturbing the person to much I would go and give medicine to take the sickness down. The hospital people would never come to me and ask me what medicine I use because they know me very well and I could also become a chief of Gushegu. So if you are having people, you should want the best for them.*

What is difference between you and the hospital? *People who always treat it in the local form first as those who are not having money but if somebody is rich it is that kind of people who always go to the hospital. Poor people always try the local form first. When the hospital form was not in existence my father was treating and people were healing but it will not more be in existence because if you are practising it you will not get anything for it anymore. So the local treatment will die. Some sickness it is not hospital people who can treat it. If you are having bad dreams and also unfertilised women cannot be treated in hospital. In hospital you will finally die because people there they cannot treat it. But for aids, hospital people have their name and we have our name. What we know is that in the night if you call your wife and she is with you and you are making love and in the process she will cough, you will know aids is getting to her. It is in that night you will have to find medicine. Because if she will be bitten by a fly in the morning before you can give the medicine, you will know that she will never get better and she will die. But in Dagbani we don't call it aids, but we call it coughing women. If in the process of making love if it is that you are finished and you will cough then the person will not get aids but if you are still in the process of making love, and you or the women coughs, aids will get you. We would not know it as aids unless they explained that this happened to them.*

What about if a child is losing a lot of weight, could you treat it? *If a child is reducing in weight two things can be wrong. It can be that the child is having piles of convulsions. If in the olden days a child was having piles their mothers would bath the child and they would find a rock and they put shea butter on your anus and put the rock on the fire and they will touch your anus with that rock and that will prevent the piles from getting into you. And then if they are pressing the anus and turn to your front organ it will prevent you from becoming a prostitute*

if you are a girl or it prevent you from becoming a womaniser if you are a guy. The women why they become prostitutes is because they are not doing this treatment anymore, they can now just go and have sex with all men.

Sometimes if you can heal dangerous sicknesses they will say you are a witch. So it is not that you are leaving here and going to let the police arrest us? Someone was treating aids and they injected him and he died so that is why we are also afraid.

I will show pictures of the nutrition centre. What is it that the children are suffering from and how does it come? For picture one it is piles or you would call it kwashiorkor. Kwashiorkor last caught my daughter and the stomach was big and hospital could not treat it, it was just the stomach which was big. We send it to hospital but they did not do anything about it so we brought the child to the house. And then it was me who found the medicine and the stomach reduced. When the child became well and later it happened again and the child was getting lean again and I treated the child again and it vanished again. Now the child has given birth to four children.

We are also treating it when women still urinates in her bed until she gives birth. If her urine mixes with the child's, the child will die. We can also treat that. It is still in existence. It is also a sickness. It mostly happens to a women. It is a bad thing, you will continue to urinate uncontrolled until you give birth.

What medicine did you use to treat your daughter? The piles medicine we used to treat it. If you want to know it, I can show it to you what it is that I mix to make the medicine. If a child is big like that, I can give you the medicine. You will run diarrhoea and it will let you to reduce. If the child stops running diarrhoea the sickness is over. It is herbs that we always use. The piles it normally comes in different forms. It can catch a person and the person will be growing lean. But another person might be growing fat. Even for my children I am practising it. If the child is lying down whether the child is a boy or a girl I put hot rock and be pressing the persons front. If he is now seeing that that place is sweating I would stop and turn.

Just to know how you think children get this sick. You people, the way you are, white, you can come and ask and we would reveal all the secrets and you will go and bring police and let us get arrested. So that is why we don't tell everything. Because you are white. If you were somebody like us we would tell you what to look for and come. That is why all the interviews you have done, they will know the medicine but they will not specify. But you always want to know everybody's secret and then arrest them. Even we can give you medicine and you can try it with one child in the nutrition centre to see if it works or not. In the olden days if a child a girl is not yet mature and a man rape the girl, they will look for a hen and remove the feather of the hen. If the hen will survive, you the child will also survive. But if the hen dies, you the girl will not survive, you can grow up and will not be giving birth. Nowadays if a girl becomes pregnant and is not yet mature, doctors will expand the front to make delivery easier because the girl is not yet grown.

You can bring bottles and we will prepare the medicine. For all the pictures we can treat them, if you want we can prepare the medicine and you can use that medicine in the nutrition centre. Witches can also let a person's stomach to be big. Some people would say it cannot be witchcraft, but witches are there and they can let a person to be like that.

Are there ways to protect our children against the sicknesses on the pictures? As for this one it is just sickness, how to prevent it is by giving medicine. If a person is having it and you will treat it will not happen to that child again but it will happen to different persons.

But is there something we could do to prevent it? Not just treating, but how can we protect our children? Sicknesses cannot be prevented, they always come by God willing. If God says you will become sick, you will become sick. If you don't want that sickness to happen it

depends on the place where you live. You cannot let different place people mix with your place people.

At the Nutrition Centre we would say that these sicknesses are there because the children did not eat healthy, and if you eat healthy you do not have to become sick. What do you think about this? Even if a child is eating healthy food, if the child is to be sick, he will definitely become sick. That way, eating healthy food will not prevent a child from getting sick.

The oedema child, they can prevent it by not letting the child to be eating not well cooked meat. If a child likes to eat that, and sweet thing lets a child to become like that. The way local treatment is different from hospital is that in the local form they will prevent you from eating some foods. Hospital people they can be treating you but you will still be taking that food. In Dagbani you need to stop that, until the sickness is over.

If you want our medicine, you should not inform anyone else, you should just bring the same translator.

If somebody is having a headache, is sneezing and blood will be coming out from your nose, and you feel dizzy, that in Dagbani we have the treatment for. That can cause a person to become blind. It is having a specific name in English but I don't know.

Does it also sometimes happen that your treatment does not work? For the pictures, that sicknesses we can treat it, but if God says the person should die the person would definitely die.

And do you know that beforehand or do you try to treat and then you see that the child is not having life? It is the mother who would explain and then we would find treatment. You go and check, for a shrine or a soothsayer before you do the treatment. Or you advise them to go to the hospital.

Interview with a mother

Note: This woman was known by the researcher, who knew that she first tried local treatment before taking her son to the nutrition setting. This interview took place at the house of the researcher.

Can you tell more about how you noticed that Yussif got sick? *The time that I realised that I needed to send him for healing I was not well myself. I was sick when I gave birth to Yussif. They told me that I had to stop breastfeeding when Yussif was six months old, because I was sick. When I was pregnant I went to the hospital and they told me that if my child reaches six months, I should go back to the hospital in Tamale. The month that I was to give birth, they told me to bring the child to the hospital. When Yussif was six months old, they advised me to stop breastfeeding him. At that time, I bought lactogen to give to the baby, until he reached seven months. Then I did not have enough money anymore to keep buying the lactogen, so then I had to give porridge. That is how he became sick. He was not growing anymore and his weight was decreasing. It was then that I started treatment for him. His father said that because I started to give Yussif food, that has caused him to be sick. Then we started treating him. We started in the local form. My husband would go to the forest to look for herbs or plants. Someone told my husband that if he brought the herbs into the house, we should boil it, and use that water to prepare the porridge we would give to Yussif. But when we started doing that, the child's weight was not increasing, he was even losing more weight and it even reached a time where he had sores in his mouth and around his anus. So when we were doing that but it was not changing, we decided to go to the hospital. When they checked on Yussif they told me that Yussif was not sick, but just did not get proper food. That is why they said that we should go to the Nutrition Centre. But his Father said: his mouth is full of sores, so even if you send the child to the Nutrition Centre, he will not be able to eat. He said we should leave the child to die. When he said that, I took his advice and did not go to the nutrition centre, but I took Yussif home again. By that time, my husband did not believe anymore that Yussif could survive. He didn't believe that Yussif would become well, if he didn't even like to eat or to suck. That was why he thought the child would not survive. He also went to other people, and they convinced him that the child would never survive. So he would tell me that I should not take Yussif anywhere, because the other people convinced him that nothing would work. That is how it was, he would just find a way for me to not be thinking about the child.*

But Yussif was still sucking my hand. And I know that if a child is sucking your hand, he was hungry. So one day I went back to the hospital, and they said I should take him to the lab. There they checked the child and said that he was not sick, but that he did not get good food to eat. They brought me to one nurse, her name was Asmahu. Pastor and his wife were not here at that moment, so she was taking care of the people in the Nutrition Centre. When that woman came to the hospital, she did not say anything but she just took Yussif and all his things. So I followed her to the Nutrition Centre. She did it because they told me 3 times that I should go to the Nutrition Centre but I was not doing it. But this time we stayed. When madame Asmahu told me to stay, I went home and informed my husband that hey Nutrition Centre people said that I should come and stay there. The reason why he was saying that I shouldn't go to institutions like the Nutrition Centre and the hospital, because he didn't want me to be away. He liked me more than my son. Also because I was sick, he didn't want me to go. He said: 'As for Yussif, he is just a child. If he dies, you would just give birth to another child. But you yourself, you are also not feeling well.' But I did go to the Nutrition Centre. The madame who took me there she forced me and now we were staying there.

When I was there for three days, Pastor and his wife returned. I was afraid. All the Nutrition Centre people were neat and healthy. When I would look at the other women, they all looked healthy and good, but I was not. You could just look at me and see that I was not healthy. I was afraid that they would send me away again, because the Nutrition centre was made for children only, but I was also sick myself. I even went into the room and closed the

door, to lock myself in. But when they arrived me and my son went outside. They said that Yussif was not sick and that they could help him in the nutrition centre. And they asked me if I had health insurance so I went home and brought it, but it was expired. So Pastor renewed it and he sent me to the hospital for treatment. It was there that I When yussif was healed, I send him home. At the house, I would prepare the food that they also would give in the nutrition centre. So Yussif was now growing and increasing in weight. But at the time that Yussif was sick, you would not believe it if someone would tell you that Yussif would survive. We give all our thanks to God. The one who was telling my husband that the child would not survive is now dead, so my husband cannot go there and tell him that he was wrong.

The local treatment did not work, because we were not seeing any changes. When I was sick myself and we were treating it in the local way they treated it for three years but I did not see any changes. At first when the sickness was in me I would just be sitting down and be coughing. When it was making me to be coughing, people said this could only be treated in the local form. We used to go the hospital but they would just give me any cough syrup but that wouldn't work, so they referred me to Tamale. My husband said we should just treat it in the local way. So he gave me medicine to put in the porridge. When I was taking it, the sickness would go and come, but it was not really changing. So I decided to go to the teaching hospital in Tamale, and they send me to Kumasi. The hospital people wrote the name of the Hospital in Kumasi down. I took it home and showed it to my husband. My husband said that we did not have the money to go to Kumasi. My husband was always emphasising to treat it in the local way. And when we did the local treatment, the sickness would stop in one month but it would come again another month. So when it was just like that I returned to Gushegu hospital and they told me to go to Kumasi hospital. When I went there, they gave me some medicine, to take in a week and I had to return after a week. So I was staying there and taking the medicine. After that they gave me new medicine for a month and when they were finished I to come back again. That's when I became well. People do say that local treatment does work, but for me and my son it has never helped.

There is one child and I am just telling the mother to send the child to the nutrition centre. I keep giving her that advice, and since I started telling it to the women, it is now two months ago, but the woman is still not listening. The mother is saying that it is that the child wants a different name. Because the child is not growing or acting like a human being, they should change the name. You will go to a soothsayer and he will determine whether the child needs another name or not. When Yussif was small they also said he should have another name, and that that was the why he was always sick. If you just give birth and the child is healthy, they will not change the child's name. But if a child is sick, they will go to a soothsayer to see whether the child needs another name and that is why he is sick, or that he is just sick. It does happen that a child gets better if the child gets a different name, but it does not always work. Sometimes you give birth and you name the child but the child doesn't like it. For the child I was talking about earlier, at first the name was Fadila. But last week on market day I saw the women and said: 'I have been telling you to go to the Nutrition Centre. Why did you not go yet?' Then the mother said it is that the child wants a different name and now they named the child Fatima. For Yussif too, the father was saying that he wanted another name so he decided to call him Mohammed but for him it didn't work. Last week on market day, you were not there when the women came to me. I had the baby sitting with me so I was hoping that you would come to the market and we could talk to the mother again. When the child was small she was very beautiful, the child is one year now, but it is not crawling. Yesterday I saw them again, and the child was still like that. If tomorrow you come to my place you can see her'

Can you tell me more about the story you told me last week?

A friend of mine gave birth to a child and the child was very beautiful. I went there when they had the naming ceremony, and since then I have never seen them again. It was one of my other friends that told me that the child has turned to be something. The child was not acting

like a human being anymore. My friend once saw the mother of the child and she told that the child was very sick. So I asked what was wrong and they said that the child was not increasing in weight. So I asked if the mother had enough breastmilk for the child. And I told her that she should come to me and that I could send her to the nutrition centre for the child to become well again. So the mother said that if I would come we could go there together. A week later I saw the mother again and I asked her how her child was doing. The mother said that the child was not there anymore, they killed it. When I saw the child for the first time it was very beautiful and did not look sick. But they said that when they gave birth to the child, even after four months the child was still looking like a newly born baby. For this child's death, it is really worrying me because when the child was small the child was not having any problem. That is what I know about it.

This is the child where they went to a soothsayer and they said the child was not a human child so they killed the child? [answered by the translator] Yeah what we mean by saying that. In our culture, if they give birth to a child, and the child reaches certain months, the child should behave like a human being. But if the child is not behaving so, they will say that the child is not a human, but that the child is a dwarf or something. They will go to the forest and kill the child. That is how they do.

[answers by the mother again] When one of my nephews was just born, he was having convulsions all the time. The child was in the hospital for one week. And then his father took him home for the naming ceremony and the child got a name. But after that the child was still behaving the same so they took him to the hospital again. He stayed there for almost a month but nothing was changing, the body was just shaking. So they took the child home again and I started praying for the child to become well. They thought the child was not a human being, but I was telling them that the convulsions he had was just a sickness. The mother was having enough breastmilk and the child was sucking and even growing fat, so I had no reason to think that it was not a human being. The child's body was growing fat but the head was just staying small. And he would be shaking all the time, and after that he would be tired and turning with his eyes. The child was eight months and still not sitting straight, so they said that the child had turned into a snake. Every Sunday I was telling the mother that they should go to the hospital. But other people said that the child was not a human being, and if you would believe that the child was a normal human being, it could kill you. One market day I saw the mother again and I asked how she was doing and the mother said that they had killed the child, and she left the house. For me, I don't believe that it exist that children can be no human beings.

Pastor told me that if I see someone like Yussif was, I should try to advise them to go to the Nutrition Centre. I also always pray for things like this, I am also just inquisitive about those things. I am telling myself that if I see people like that, I would pray hard that they bring the child to the Nutrition Centre. You recognise them from the look of the face and the skin. The face would just be shining, the body would just not move, and it looks like there are no bones inside the child's body. If they see children getting better, it will help people to go there. If it happens to somebody and that person gets healed, you can use it as an example. That works best. And if they think the child cannot survive, I can use Yussif as an example.

One of my brothers is also a soothsayer. I am taking care of one of his children now. He also used to kill children. The mother of the child would take the child on her back and follow the soothsayer or the person who is having the medicine. They would go to a place for the child to leave. The women will not be facing the person who is taking the child. The traditionalist will now take the child from the mothers back, and he knows what to do with the child. And the mother cannot look back or cry, otherwise the spirit will come back in her next child. I told my brother that this does not exist. He once prepared some medicine that he would use to kill the child. My brother reached the house and went in but the child spoiled the medicine. Because if it is a spirit, it would find a way to spoil it. It is only a soothsayer who can say whether a child is a human or not. For Yussif my brother did not believe that he was no

human being, but he thought that Yussif got sick because I was also sick. If they are going to take your child, they would only tell it on the day that it is going to happen.

One women's child was 5 years old and the child was not walking. The parents took the child to the Nutrition Centre and the child was growing well. The child would eat weanimix and grow fat. The child's mother told the Nutrition Centre that she wanted to go home to farm. But when they went back to the village they killed the child because they thought it was not a human. When the mother told me this, I was very sad. As a woman you always like your child and keep thinking it is a human. But the husband will go around to see soothsayers. But it does not happen that much anymore I think. Not everybody thinks if a child is malnourished that it is a spirit child. Some people you really need to force them to go to the Nutrition Centre. I was in that situation myself. Giving people an example is the best way, so if I meet people with a malnourished child I would ask them to go to the Nutrition Centre.

Interview with the nutritionist

Note: This interview took place at the nutrition centre. The nutritionist was aware of the purpose of the study, but the outcomes of the group discussions were not yet shared with her.

I went to Kpatinga and two villages to talk with the women about what they believe and what they think about malnutrition. One of the things I found very interesting was that a lot of women would say 'my child got sick because God wanted to' and that would prevent them from getting help. Do you recognise that? *Well that is what some of them think and they think it is not due to food but rather it is due to.... well some people think that it is other who have done that to them. And other will say 'ooh my child was going to fall sick already' and others also think it is others who did it. That is their perception. You know in Ghana here we normally have this perception that somebody can do something wrong to you, because some think it is others who have done that to their children and others also think ooh my child doesn't like eating but they don't know that the child doesn't eat because of the malnutrition.*

Do you think it holds people back, if they believe others did it or that it is just the fate of the child?

One thing is that sometimes that is why some will come in very critical condition. When it happens that they think that it is others who have done that to them. You will realise that they will be in the house seeking for traditional herbs to bath the child and for the child to take. So that way they will delay at home. Until somebody is ready to convince them that it is not somebody who has done that to you, but it is rather malnutrition before they will now seek medical help.

It was the same with Fadila's mother. *They had the believe that it was somebody else?*

No not that but Fusheina said that they tried to give the child a different name and then that didn't work. *When they even came I was trying to find out the help they already sought and they told me that they were seeking for traditional help and that they were even bathing the child herbs and other things, so these kinds of perceptions.*

But what is the best way to deal with that? *The best way to deal with those kind of situations? In that situations not until you see them, the situations, you can address it. Because its only when somebody knows something about malnutrition that they can convince them. And even sometimes you need to even cite an example. For example: Oh you remember my child when he was also like this it was due to this this this that actually made my child like this and when I went this was what happened. Or: Can you remember this woman's daughter. You remember this this this happened to the child it was when we send the child.. in that way, the mother will now be convinced. But other times when you do not have examples or other similar cases to actually show the mother, the mother will not even be convinced. So most of the time unless you see those situations then you advice it directly.*

It works very good, for example on mother told me how often she would advise people to go to the nutrition centre. *Because she has ever been here. So sometimes she would use her son as an example.*

She also said that her family believed that her son would not get better anymore so there was no sense in going to the nutrition centre. *I remember my grandfather was sick and everybody gave up they said ooh what can only be done about it but I said no its my father we still have to send him to treat him. When we send him he got well. That is how it is. Sometimes when those kind of things happen the family members will tell you ooh you are only wasting your time nothing can be done about it.*

But how persuasive should you be? If for example a child's mother wouldn't have come, should you always go and find them? *Yes when you see those kind of things you can find them you can look for them. For example if someone would have said something about it maybe I would have also gone to talk to them so that if they are convinced they will come. Other times to you actually have to follow them for a time before they come. If they are not convinced they will not come.*

But do you know what kind of things could convince them to come? *For me I think that even if you don't know somebody you can use as an example what can help them is when you go there you can have some pictures of children who have also gone through the same situations and you show them similar situations. You show them these pictures and through that they can be convinced but if you just go and talk to them they might not even mind you. If you show pictures of children who were in those kind of situations and how they recovered and how they looked it can convince them. So by talking to them and showing them some pictures I know they will be convinced.*

But I think one disadvantage is that it is all very focussed on treatment, and not on prevention. *The best would have been prevention, that is what we even do in the outreach programmes. But we can't reach out to everybody. So that is the issue. The main issue here in Gushegu is preventing it and not waiting for it to happen and try to cure. That is not the best. But the issue is how to reach out to everybody. And one other thing too is that some people will even know about it but yet.*

But when I did the group interviews, it seemed that the women do not really get the point of prevention. But rather focus on after it has happened, and then look for the solution. Is it something you could make them understand? *They don't see it anyway. They only know that the child would be cured but as to the effects. You know those ones are long term effects on the child. The child will grow up with it. It will stay with the child forever. They don't see those ones. Actually I think we are not actually doing something about it. Sometimes we start education with the mothers when they.. in fact. They need to know how dangerous malnutrition is and they will try to care. Because they just think if your child is malnourished and you just go to the NC and they cure. That is it, that is what I think. But the side-effects, the long-term effects they don't actually think about that one. I think that it is time that we talk about them.*

It is also difficult to make that visual. *Because it is long-term. It will be difficult for them. But we could still tell them the effects and those who foresee those things will actually take our advice and they wouldn't allow such a thing to happen to their child. If you are only telling that ooh if your child is malnourished you go to the rehabilitation centre. We don't normally include the side effects. Most of the time you realise that the child IQ level will be bad. That is it. And sometimes some of them will be stunted. You realise that the growth level. So I think we have to do something about it. That is a good idea, let me write it down.*

In Kpatinga they knew quite a lot about the nutrition centre but there and also in the other villages they said: Yeah we know what food is healthy but we just do not have the money. In how many cases do you think it is really that they do not have enough? *That is their mentality. That is their perception. Because over here what we have been telling them is that we don't expect them that you should go and buy things that you don't have. Just make good use of the things that you have. When we are talking about the tree food groups. You know there are some other foods that we don't have here. Carrot, green pepper and those kind of things. Before you get them you have to buy them. It is even now that green pepper over here we've started cultivating them by ourselves. But we are not telling you to go and buy those ones. Why don't you just make good use of the means that you have? Because like the fruits and the vegetables for instance we also have some that we can even grow just outside our houses. So we always focus on the fact that they should use those ones and not those that they are going to buy. Because you can tell me that you don't have money, so*

what about the one that you can have. If you are able to make good use of it there will be no need for you to go and buy them from outside again. They still think that, they don't have the money to buy that is why.

Some women said: Oh we do not have money so we can only give TZ to our children. *[laughing] We have even told them that for the TZ you can even vary the soup. But still continue with your TZ. Vary the soup. Not necessarily eat dry okro all the time. You can have fresh vegetables like bra, ajuju and those things, you change them.*

So for most of the people a healthy diet should be possible? *It is possible for everybody. For everybody in the village. Because we have all the healthy meals from the thing that we have at home. We can prepare healthy meals from that.*

How do you think it comes then that people still think they are too poor? *Just like I said, people think like that it is from buying they can get a healthy meal. But that is what I am saying that is their perception. That is what they think. But it is not so. Because we have everything that can make us healthy but we are not making good use of it. You realise that we rather look down upon those ones and try to buy things from others. Instead of giving the breastmilk you want to be given Lactogen. Those thinks. And we think that when you take those kind of things that is when you will be healthy. And it is just our mind. It will also make you. Like your status will also change, because you are able to afford them. But that is not the case. Even if you have your dawa dawa and then you use it somebody has his meat and he uses it, you are all going to get the same thing. But we rather will look down upon our dawa dawa and be looking up onto the one who is eating the meat and we also want to buy meat and be eating it. If you can't that is when you realise your child will be malnourished because you are not even making use of what you could have to make you healthy. Like your dawa dawa, you are not making use of it. You rather wish that you can take the meat so that at the end you are not able to get the meat and your child is not getting the dawa dawa because you are looking down upon it so you don't even add it to the soup.*

But how can the women be made aware of it? *Through the education. Yeah.*

But even in Kpatinga, they should know it. *Yeah. Those who have ever been here.*

One grandmother told that her grandchild went to the NC and got healed but she still said 'ooh it is that in the nutrition centre they can afford food that we cannot buy at home. It is just TZ that we can give.' *That we can afford? [surprised laughing] Which one is it that they cannot afford? Is it the fruits? Or is it the yoghurt? And even the yoghurt it is only recently that we introduced it. Quite apart from that, all that we use here, they have it at home.*

But they really view the Nutrition Centre as a place where they can do things you cannot do at home. *Aaah. I see. That is what they think. That means that we have to do something about it. This place has been made in such a way that it looks like home. So if they now have the perception that what we do here is quite different from what they do to, then we have to change the setting.*

What changes would it take? *It means that we would have to change our menu. But one strange thing is. How the food that we prepare here. They have it at home. I don't see the only difference is just the yoghurt which has been introduced just recently. So I don't know*

Maybe because of the medicine or the plumpynut. *Yeah it is possible, they might say that they do not have the drugs at home and then the plumpynut too it is possible.*

There are stories that you, for example, should not give your child eggs because then it would become a thief. I was trying to find out if there are more food taboos but I couldn't really find them. *Yeah we don't have them. I think it is only the egg that I have heard of.*

Some women mentioned that mango is not good for pregnant women. *What would happen?*

The child would get convulsions or it would affect the walking. But you do not know more different taboos? *It is only the egg. Because I remember that even when I was a kid that perception too I had. I used to hear people say it. Like the protein food, it is not only the egg. Even meat. If you are used to giving your child those kind of things it will become a chief is what they were used to say. Those things. But the mango and other things I never heard it. The issue is that those things are very tasty. And if you are used to giving those things to your child your child will love them. Whenever your child sees those things your child will be demanding. So they just, well to cut it short for example when you go to occasions if your child is used to be eating meat when they are frying the meat and your child sees it your child will be crying for it so instead of providing whenever the child needs it those who are used to doing those thing to your child it will rather make your child a thief. Because whenever your child sees it, your child will love it. And others have the perception that when your child grows up because you are no longer giving those things to your child or because your child is no longer getting those things your child will begin to steal your money and be buying those thing. But I don't think they are true. They are not true. Because there are even children who had never taking eggs or meat since their childhood but you realise that when they grow up they will be doing those things so who has taught them?*

They always say that there are a lot of taboos and I expected to find some but there are not much. *I remember there was some time back we also did my research of infant and young child feeding and it was one of our questions but we realised that you didn't get anything when you came to the taboos. It was only the egg that people were talking about.*

But could it be that there are taboos but that people don't see them as taboos because it is so normal to them? *I think they are just not there. And even those that you will get, it is to just a particular group of people. Or one community. They have that perception. But it is not general. But the egg for instance everywhere you go they will talk about it. That is the only general taboo that I even know. Quite apart from the mango, I have never heard it. It is possible that it is just in that setting alone. That they have that as their taboo. To other communities they might not even know.*

One other thing I noticed in I think almost all of the groups they said about food prescriptions that you just have to try out and if your child has to vomit or has diarrhoea you should stop giving that food. Or if you are pregnant . A women for example said that when she was pregnant everything would make her vomit so in the end she would only eat stones. But I think that could be quite. *Dangerous yes. You know we have everybody and how she reacts when she is pregnant. So in those conditions they will always tell you that when your case is too sever, you can come to the hospital. If you are always vomiting you just have to go to the hospital. Those things every pregnant women goes through it but you will realise that in some cases it looks like it is too much because some women they will always vomit whenever they take anything and others they only vomit when they take some foods. So if your case is such that you are always vomiting everything that you take of course you have to go to the health personals. You can't just be eating stones. That is not possible. At that stage you need even extra meals so if you are taking only stones you are harming yourself.*

But also for example if a child is malnourished. It often has diarrhoea and is vomiting and then if someone would say oh maybe you should try give it fruit or eggs and it still vomits then people would say it is the food that makes them vomit so they should stop. *It is possible because we even realise that most of the children that come here if you ask them whether the child is eating and they say the child used to eat but now that the child is sick the child doesn't eat. Because he mother might still give the food and realise because the child is vomiting the mother will just stop. Maybe only the breastmilk. Which is bad. Because even if your child is sick the intake will reduce anyway but you have to increase the frequency. So that through that it will still help the child. It rather be normal and not to reduce weight. But*

most of the time because the child is sick and the mother has given in and the mother will say that it is the food that is making the child to vomit and to run, I will stop. Then that is how it is. So it will come to a time that they will say ooh the child used to eat but not anymore. And those are the reasons, because when I give food the child will be vomiting.

But how can those things be changed? Those ones we would just have to tell the mothers that even if those things continue you still have to continue to give the food. Because one thing about vomiting is that whenever it happens, at least some food will stay. If the child eat the milk and then vomit at least something will stay. The child will not just vomit everything out but definitely some will stay. So it doesn't mean that because the child is vomiting you shouldn't give the food again. You still have to continue or even wait, after the vomiting you wait for some time and then you give the food again.

It is just the question how we can make people also get to do something for the preventions? Experience and examples work very good if a child is already sick but how can you get people to understand to prevent it? You know this workshop that we attended, it was on infant and young child feeding and you realise that the first thousand days, if there is just a mistake somewhere, it means that it will affect the child, even up to older age. So there was this groups that we said that we are going to form in communities. When we have volunteers and then we form some small groups, a group of about thirteen or even less and they will have their days that they will use and over there they will discuss issues concerning the health of the child. For example initiation of breastmilk immediately after birth, talking about complementary, talking about exclusive breastfeeding and those things. In that situation you sit together and then people will bring their.. we have two different types we have the support group and we also have the action orientated group where you sit. You can give a story show a picture or something and then you discuss it. They will bring their ideas. You wouldn't just be talking. For example you can have a topic of complementary. Then you have a picture of it where you show it to them they will tell you the things that they see then you discuss it. What is it telling you and those kind of things. That way they will bring their own ideas. And through that you agree on what to do. What do you want to change from now onwards? Maybe you are doing certain things, but now that you've learned this, what do you think to change? They will just be saying those things, you wouldn't be talking. Then that way it is easy to actually deal with the situation because they will tell you what they can do. You are not forcing them to give it. It is they themselves who are willing to change. So they will tell you the things that they want to change. And you decide on the day that you meet again and when you come you will talk about what you learned previously. What you said previously, have they been able to do it. Was it easy, was it difficult, those kind of things. So during that session we decided that we are going to form groups from those things. And I think that it will help. Because most of the time you will realise that the mistake is from zero to the 24 months. And if things have been done right from zero to 24 months meaning that the child will grow up to be a healthy person in the future. I think the action oriented groups and those kind of support groups where you sit and discuss those things you will tell them to also share it among themselves. When you go home don't just keep it for yourselves alone but you realise that when they are going to fetch water or something they will be discussing. Oh we learned that this time around immediately that you give birth you have to put your child to the breast, those kind of things. And the other person, meaning that the information will pass on to the next person and that is how it takes. And people will get to know about those things. It is much better than just giving health talk. Like you're just educating them: you are supposed to do this this this this. It looks like you are just giving them the information and some will not even take it. If they themselves contribute, they themselves say those things, they can put it into practise. But when you just sit them down and then talk do this do this. At the end of it they will forget they will not even do it because they have not agreed to do it. You are just giving them information and they can decide to take it or not.

I also thought about it for the education here. If the women come up with something themselves and also talk about it later about how it went and if they saw any changes. If they really see that it helps that they for example wash their hands or help feeding their child it makes them enthusiastic if they see it really does work. *Yeah some kind of practical.*

Yeas but also looking back to what change it made. *So that they will reflect on the things that they used to do , the things they are now doing and whether it had really helped them in any way.*

These groups, you were talking about, they are going to start them in the communities? Yes

And what is the role of the nutrition centre in that? *We are also supposed to share the information. For example: you know with this situation of breastfeeding where the people will come with ooh I do not have enough breastmilk. You can even use it as an opportunity to talk to the mother, that if she does this thing and that that the breastmilk will come. You can even show pictures, they have given us some cards when you show the pictures and how they are doing it. If the mother should practice it, it will help. Quite apart from that. You know Yishelanyili for instance is a community. What we can also do is that we can also go around the community. Get children between 0 to 24 months, register them, meet them from time to time. We can even get volunteers who will go and then discuss those things.*

I also thought about that, to maybe choose some communities to really invest in it instead of going on outreaches once here and there. *That groups, they are really helping far more than even this outreach programmes. Because you know these are outreach programmes you only go and then you give information but with this one you don't just give information but they have to rather bring out the information themselves. So it will rather help if you are able to make use of it.*

I found a very interesting programme they did in some other countries, where you also have those kind of groups. It starts with that the women are doing some kind of assessment in their community to find someone who is in the same situation, who has the same income and so one, but whose child is not malnourished. And then they need to find out how does that come and what does the women do right. And then they need to see if they also can do it. *But this one will comprise of both men and women. With different status. Not with the same social background but you will just get a class full of people. Men and women and their children. With different background and other things, you just sit them together. Because they are from different homes with different statuses they will have different ideas and people can bring out ideas that will help each other. This one you don't get the people based on certain qualities but you just get a group of people. Different kinds of people.*

That is also a point which would be good, to focus also on men. It seemed that in the end they are the ones who take a decision, also when you would go to traditional healer. But the male also seems to be the one who would more often be the one to say to go to a traditional healer. The women might think about the NC but the man would say 'ooh we have our own healers' *So you know with those groups the men will also be around to hear and to know much about it. So whenever those things happen to them. When they find themselves in those situations, the man will not even be thinking of the traditional healer, because he knows everything about malnutrition. And you just move straight to where the solution will come from. And not just to be barking around before he gets to know the right place. It will help. Since it is involving both the men and the women. Most of the time, we the women we know much. But we cannot actually make good use of it. Because we don't take the decisions, it is the man who does. Sometimes when a women even brings her idea, the men will even say ah, who are you to also tell me to do this. We Africans, we have that perception, that women they can't give advice. Even if there are issues, they don't even consult the women because they think that you will not know it and that you can't give them any better advice. So whenever those situations arises and even if a women brings a better*

idea, the husband might not even take it because he doesn't really see a women having any better idea to offer. So even if you say it the man will not take it. But if you also involve the men in this situations, you will realise that they themselves will also know it. When the women even suggest those things, the man will say yeah, it is true because I also learned that. And you realise that the man can take it. But if the man knows nothing about it and is just the women who has brought that idea the man might not even take it. The women, what do you know? We know nothing, that is what they always say. So it will help if only we are able to utilise it well.

