‘Vegetables are not for kids’: parents perspectives on healthy nutrition for their children.

A qualitative study carried out in Kampala, Uganda

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Abstract

Background

The government of Uganda adopted the Millennium Development Goals and tried to reduce malnutrition in children aged under 5. Despite several intervention programs targeting parents, the reduction of child malnutrition has been insufficient. The lack of expertise about the local perspectives of parents could be a possible cause for this. Inadequate feeding practices of parents could cause malnutrition in their children and therefore it important that parents are reached to be educated about appropriate feeding practices. It is significant to investigate the vision of parents concerning malnutrition interventions and thereby signify their perspectives on healthy feeding. The aim of this study is to clarify the perspectives of these parents on malnutrition in 0-2 year old children, in order to contribute to malnutrition prevention programs.

Methods

A qualitative study was carried out in several slums in Kampala, Uganda among parents of children aged up to two. Through purposive sampling eight respondents were selected for in-depth interviews. Half of these respondents had a malnourished child and the other half had a child that was not malnourished. Among the participants, one male was interviewed. Thematic analyse was used

Results

Vegetables were rarely given to children, despite their opinion that vegetables are healthy. The reasons for this were due the lack of money, misconceptions and priorities. Respondents explained that the lack of money to buy healthy nutrition was the major cause of malnutrition in children. Being a single mother, with poor financial resources, can therefore result in having a malnourished child. Radios are the best medium to reach people about healthy feeding practices, since practically everyone has access to radios according to the participants.

Conclusions

The major cause of malnutrition is the lack of money to provide enough healthy food. The lack of knowledge and the presence of misconceptions concerning healthy food and feeding practices influence the way parents feed their children and could result in malnutrition in children. Health education should be improved; the local misbeliefs and inadequate knowledge have to be eliminated. Interventions should utilize radios and implement them for reaching people about advice that contains adequate information about healthy feeding practices.

Introduction

In 2000, 147 heads of state drafted and accepted the *Millennium Development Goals* during the 'United Nations Millennium Summit'.[1] These eight goals were established to increase development efforts for and in developing countries and they have to be achieved in the year 2015.[2,3,4] Examples of theme's that were included in these goals are: '*to reduce child mortality*', '*to improve maternal health', 'to achieve universal primary education'*, but also the goal "*To eradicate extreme poverty and hunger*" was paramount. One of the targets of this last goal was to halve the amount of malnourished children under five years.[2,3] Also Uganda had adopted the *Millennium Development Goals* and the government wanted to, inter alia, work on the goal regarding to malnutrition.[2]

Malnutrition occurs due suboptimal nutritional conditions that lead to a deficiency of proteins, energy, minerals and vitamins and these nutrients are required for the normal development of a child. When children are malnourished, it could lead to loss of body fat and muscle tissue.[6] Thereby, their bodies will not grow properly and they are at high risk to contract irretrievable mental disabilities.[5] Malnutrition is associated with low socio-economic circumstances and an increased risk on adverse conditions such as chronic health issues and/or dietary habits that are not complied with the guidelines for healthy nutrition.[8] In Uganda, 23% of the children aged under five are malnourished, which are two million children.[7]

According to the numbers of the 'United Nations Development Program' (UNDP), it appears that progress has been made in Uganda since 2000 concerning the reduction of poverty and underweight among children.[2] Uganda developed various strategies to improve the situation regarding malnutrition. For example in 2010, the Ministry of Public Health in Uganda has drafted guidelines towards acute malnutrition: the so-called IMAM (Integrated Management of Acute Malnutrition Guidelines). IMAM is a strategy to tackle acute malnutrition and it focuses on integrating the management of acute malnutrition in the existing routine of health care.[6]

The president of Uganda, Y.K. Museveni, has launched in 2011 the five-year Uganda Nutrition Action Plan (UNAP) within the framework of the 'Ugandan National Development Plan': transforming Uganda in a modern and prosperous country. The aim of the UNAP is to improve the nutritional status of all Ugandans, with special regard to women, babies and children.[5] In order to meet the nutritional requirements of these groups, the UNAP has implemented proven high-impact interventions. Most of these interventions are focussed on the areas of production of durable nutrition, nutritional care within the household, the public health and the support of the livelihood of mothers and her children. The UNAP has placed the focus on the feeding practices of mother and child, in order to improve awareness about healthy feeding and increase healthy eating behaviour.[5]

Despite these efforts of the government of Uganda, malnutrition is still an alarming issue for the public health in Uganda since 60% of the mortality among children ages under five is related to malnutrition.[5,7] Before the Millennium Development Goals were drafted, the percentage of malnutrition in children aged under five in Uganda was 27%, now, it is 23%. It seems that the target group has been reached insufficiently because Uganda did not achieve the goal of halving the amount of children with malnutrition since 2000.[5] This is remarkable since the UNAP plans were specifically aimed at mothers and children. The cause for not achieving the goal is not yet clear and it is of great importance to know this cause, to make interventions as effective as possible for the target group, which was already the plan of the Ugandan government in the first place. The lack of expertise about the local perspectives of stakeholders such as parents could be a possible cause. Parents are one of the most important stakeholders with regard to malnutrition among children since they are the ones who feed their children, make choices concerning nutrition and could teach their children nutritional behaviours. Studies on young children's feeding practices have shown that It is important for children to get appropriate feeding practices during childhood, especially in preschool years, otherwise it could result in serious consequences for the development, growth and survival of these young children, especially in developing countries.[9,10,11] Inadequate nutrition during the first 2 years of a child's life can lead to morbidity in childhood. In addition, it is one of the most important preventable risk factors for mortality in these 0-2 year old children.[10] Inappropriate feeding practices[11] and nutrition knowledge[12] on the part of parents are important causes of malnutrition in these young children. Two controlled trials indicated that education about community-based culturally appropriate nutrition could improve feeding practices, dietary intake and growth in infants. [13,14]

Unfortunately, in many countries, such interventions with strategies that are community-based are limited due to sustainability that is in most cases only depending on political expediency.[10] Thus it is of great importance that mothers and fathers of children up to two years old are educated about these appropriate feeding practices. The interventions conducted to date were mainly aimed at mothers, wherefore it is significant to investigate their vision concerning these interventions and thereby find out what their perspectives are on healthy feeding in their young children. The aim of this study is to clarify the perspectives of these parents on malnutrition in young children (0-2 years old), in order to contribute to an intervention with reference to malnutrition among these children.

Methods

Design

This qualitative research is a explorative study to understand the perspectives of parents in Kampala from children up to two years old, on malnutrition and (un)healthy nutrition. This study took place in collaboration with the Dutch organisation 7Senses and the local Ugandan community centre COMEDEV International (Community Empowerment for Sustainable Development). By the use of semi-structured in-depth interviews, these different attitudes and perspectives of parents were collected. Before the interviews took place, the researcher of this study attended four meetings where she got trained in intercultural interview skills and ethics concerning the differences between the Ugandan and the Dutch culture. These trainings taught her to minimize cultural misunderstandings during the interviews and to encourage participants to give their honest opinions. The researcher collaborated with Ugandan researchers. These Ugandan researchers could assist with recruiting participants, help with cultural differences when necessary and interpreting the Lugandan language during interviews. Also the topics in the interview guide were approved by the Ugandan researchers to make sure that it was appropriate for the Ugandan culture.

Population

The participants included in the study, consisted out of parents with a young child and who were living in Kampala, Uganda. Because this research is interested in the perspectives of novice parents of children up to two years old, the inclusion criteria contained that the parents had to take care of the maximum of one child and that child had to have a maximum age of two years. Recruiting the participants was done using purposive sampling, to get a varied sample of parents: parents living in different slum area's in Kampala, parents of children with and without malnutrition and mothers or fathers. The research population is recruited in cooperation with a COMEDEV International and the local medical centre in Bweyogerere. Five participants who met the inclusion criteria were recruited for this research in the Bweyogerere health centre. The head of the doctors in the health centre was aware of the inclusion criteria and directed people who met these inclusion criteria to the researcher if they wanted to be interviewed. A Ugandan researcher, who had connections in the slum community, recruited another three participants meeting the inclusion criteria. These participants were interviewed in their homes in the slum. Attempt was to get a varied sample as possible. The interviews were conducted right after the participants agreed. Between the beginning of March and the end of April 2015, the participants were interviewed.

Data collection

The researcher AS conducted the interviews. Before conducting the interviews, an interview guide was made in advance on the basis of reading literature, intuition and is modified where necessary based on the first interviews. This interview guide contained a list of topics regarding perspectives on: (un)healthy food, malnutrition, (the use of) health services, and intervention programs regarding healthy nutrition. The use of the interview guide of student AS made sure that the main subjects were discussed during the interviews.

A second researcher, YS, attended the first two interviews, in order to give feedback on the interview skills of AS. The participants were asked to sign an informed consent, which gave the participant's final consent to participate in the study.[15] Every interview had the same protocol: first the introduction, followed by noting the demographic data such as: age, education level, family status, amount of children, where they are from et cetera. After that, grand tour question and the questions arising from the topics list were asked. The grand tour question was the beginning question about the meals of the participants on an ordinary day.

The interviewing style had an open character, so that the participants had the opportunity to express their feelings, perspectives and experiences into their own words. participants were encouraged to give their honest opinion and not to give 'desirable' answers. The 8 interviews lasted between 30 and 50 minutes and were held on the basis of a pre-prepared interview guide. The interviews were recorded using audio equipment. After every interview, two researchers discussed the interview, to make slight adjustments to the topic list and improvements of the interviews when needed.

Data analysis

Using a thematic analysis, the data from the interviews were processed and analysed.[16] The interviews were verbatim transcribed. After each interview, a summary was constructed with the general characteristics of the participants, key information per theme and the memos, in order to get a clear overview of each interview.

Subsequently, AS and YS collaborated to fragment the first interviews and to code the interviews using open coding. This form of triangulation is used in order to increase the internal reliability. After this, AS and YS did this for their own transcripts. Thereafter, AS and YS met again to review the codes. Using the axial coding, codes were merged that showed overlap and remarkable matters were noted in a memo. The codes were divided into sub-themes. After naming the sub-themes, themes were developed that were in line with the established sub-themes. Since selective coding brings structure into the created themes[17], this was done in order to thereafter draw a code tree. During the whole process of coding, there is looked at the obtained information as open as possible.

Results

In total, eight parents were interviewed who took care of only one child with a maximum age of two years. Of these, four parents had children who were malnourished. All respondents but one were female. The ages varied from 17 years to 33 years old. The ages of their children varied from just one day old to two years old. The male respondent was married and more than half of the women were single mothers. Three of these four single mothers had a malnourished child. The parents had to take care of one child, but two respondents did have two other children where they did not take care of. Table 1 contains more detailed information about the participants.

	Sex	Age	Relationship status	Amount of children	Amount of children taking care of	Malnourishment status child	Age of child
R1	Female	22	Married	1	1	Not malnourished	6 months
R2	Female	19	In relationship	1	1	Not malnourished	9 months
R3	Female	22	Single mother	1	1	Not malnourished	1 year 11 months
R4	Female	19	In relationship	1	1	Not malnourished	1 day
R5	Female	25	Single mother	1	1	Malnourished	1 year 5 months
R6	Female	17	Single mother	1	1	Malnourished	1 year 1 month
R7	Female	24	Single mother	3	1	Malnourished	2 years
R8	Male	33	Married	3	1	Malnourished	2 years

Table 1 Characteristics of the eight parents included in the study

The results of the interviews are discussed below, based on three themes. The first theme concerns the current nutrition the parents give to their children and the perspective of parents on healthy nutrition. This first theme is divided into subthemes concerning different food categories like drinks, vegetables and fruits and staple foods. The reasons why parents act differently than in what their opinion is healthy, will be discussed at the end in the first theme. The second theme contains results about the perspective of parents on malnutrition. In this theme, perspectives on the causes and prevention of malnutrition will be discussed. The last theme concerns the ways the participants obtain knowledge about healthy feeding and what, according to them, would be the best way to reach people about information about healthy feeding. These three themes are summarized below and illustrated by quotes.

1. Current nutrition of children and perspectives of parents on healthy nutrition

Breastfeeding and drinks

When discussing breastfeeding, half of the respondents stated that they give their child breastfeeding. Two of these parents added cow milk besides the breast milk as well. Most of the children who received breastfeeding also received porridge. The other four participants did not give breastfeeding to their children at the moment. They gave matoke[1] and three of them also gave posho[2] added with beans. Only one gave cow milk in addition. All the children who do not get breastfeeding anymore had a minimum age of one and a half year. The only meat and fish that were given to children, were given by the parents who did not give breastfeeding.

Boiled water was given to every child, but juice and soda were only given to three children. The children, who were getting soda, were also the ones who were getting fruit juice and vice versa. These children received in general more varied food than the other children, since they were also the ones who were getting fruits, rice and meat or fish. More nutritional details are illustrated in table 2.

	Posho	Potatoes	Porridge	Matoke	Breastfeeding	Rice	Beans	Fruits	Macaroni	Meat /fish	Eggs	Milk	Boiled water	Fruit juice	Soda
R1		X	X		X								X		
R2	X	X			X			X			X		X	X	X
R3	X	X	X	X		X	X	X	X	X		X	X	X	X
R4			X		X			X				X	X		
R5	X			X			X						X		
R6	X	X	X	X	X	X			X			X	X		
R7	X	X	X	X			X						X		
R8				X		X				X			X	X	X

Table 2 Nutrition and drinks given to the children of the respondents

Staple foods

The daily nutrition that the participants gave to their children consisted mostly out of staple foods like posho, potatoes, porridge and matoke (cooking bananas). A sauce with beans was often added to these staple foods. Porridge was also a component of the daily nutrition that parents gave to their children. Both meat and fish were rarely given just as eggs. The parents identified porridge as 'good' and 'healthy' food. Table 3 contains more detailed information concerning healthy nutrition according to the parents.

[1] Cooking bananas

[2] Dish that consists out of maize flour added with water

	Vegetables	Porridge	Potatoes	Beans	Fish	Fruit	Rice	Matoke	Chicken	Meat	Butter	Soya	Eggs	Macaroni
R1	X				X									
R2			X				X				X			
R3	X			X	X				X					
R4	X	X		X		X				X			X	
R5	X	X										X		
R6	X		X			X								X
R7		X						X						
R8														

Table 3 Healthy nutrition according to the parents

When discussing healthy nutrition, staple foods such as matoke, potatoes and macaroni were only rarely mentioned while the diet of the children mostly consisted out of these nutrients. Posho was not even mentioned at all. On the contrary, the respondents who did not indicated vegetables as 'healthy', said that they thought of staple foods when referring to healthy nutrition:

I: 'What do you think is healthy food?

R2: That it is rice.'

Only three of the respondents indicated that they give rice to their child, besides the most given staple foods:

R5: 'If I had all the money of the world, I would buy rice.'

R9:' I'm just telling about before when I had money, I knew at least to eat well by myself some rice.'

The aforementioned comments from the respondents implicate that money plays a major role in purchasing rice.

Fruit and vegetables

Two out of the eight participants mentioned fruit when talking about healthy feeding. Fish was mentioned twice while chicken and meat were mentioned once. The only male respondent, R8, could not mention anything specific. He said that the only thing he knew about healthy feeding, is that it is important to eat a variety of food.

When discussing healthy feeding, most of the parents identified vegetables as 'good' and 'healthy' for their children. Five of the eight respondents indicated that according to them, vegetables are one of the healthiest foods:

R1: 'I think greens, vegetables, fish is nutritional food.'

R3: 'The food I think, fish is good. Beans is also good. And greens they are good. Yeah. I think that.'

There is asked what the parents' practices are about giving vegetables and fruits to their children. Only three out of the eight parents stated that they were giving fruits. All of the respondents said that they were not or rarely giving vegetables to their children. Respondents were very brief about this subject:

R8: 'I am saying that we rarely eat greens.'

R2: 'No, my child doesn't do vegetables.'

Reasons why parents act different than what in their opinion is healthy (?

There is a difference between what parents think is healthy for their children, and what the actual nutrition is that they give to their children. There are several reasons for parents why they act different than what in their opinion is healthy.

The reasons to not give their child vegetables, despite the fact that the participants find vegetables healthy, vary among the participants. One mother had the impression that it was not a wise thing to give young children vegetables, because she thought that the bodies of these children could not handle it:

R1: 'She not yet eating greens. Because she is just six months. She is still weak for vegetables.'

Three of the respondents, who said that vegetables were healthy, said that they did not give their child vegetables every day because they do not have the money to buy them. The participants indicated that money is a key issue in buying vegetables for their children:

R3: 'Yeah we do eat vegetables sometimes but not most of the time'
[…] 'If it was up to me with money I would give her anything she likes' […] 'according to healthy foods. It's like okay giving her the healthy food is like giving her I think greens. I think every day yeah. They are good.'

R5: 'I don't have the money to buy the food which is good to the baby. […] No I don't have money to buy greens and so.'

The opinions of the participants were divided when asking if they thought that they were giving healthy food to their child. Half of them said that, according to them, they were nourishing their children with healthy food. Mostly proteins and carbohydrates fit in a healthy diet, according to a parent. Another parent said that her strategy of giving a combination of Irish potatoes, butter and juice, is an excellent and healthy way to feed her child.

Three other respondents did not believe that they were feeding their child in a healthy way.

One reason given for this is that one parent only gives one type of meal to her child and she feels that it is not sufficient enough for her child to retain a good health. She cannot afford other, more healthy food because she has not enough money. The other parent who did not think that she was giving healthy food to her child said that she also has a problem with money. Since she is depending on other people, she has no choice but accepting whatever they are giving her. She is glad with everything she gets; otherwise she has no food at all. These parents said that they were feeling very bad to know the right thing, but not being in the position to act like it. The third mother said that she knew that vegetables are healthy, but that she is not giving vegetables to her child, because of the preference in food of her child. The preference in food of the child is also determining her view on what is healthy for her baby:

I: 'And, why does your baby doesn't eat greens if you have them?
R6: He doesn't eat vegetables, he doesn't like it. You can't force him.'

I: 'Do you think that macaroni and Irish potatoes are healthy? Or are good for him?'
R6: 'Yeah I think so because he likes it'

There are also three parents that said that having a varied eating pattern is very healthy, but that it is very hard for them to meet that standard because of a lack of enough money. The same reason is given when participants said that they would like to eat (more) fish and meat because it is healthy according to them. Half of the respondents did not know what 'healthy food' was. Therefore, they could not make decisions according to healthy or unhealthy food:

I: 'Can you tell me what healthy food is?
R7: I don't know
I: so you don't obtain knowledge about healthy food?
R7: I have not get the opportunity to be educated on nutrition.'

Three respondents told that they never had sufficient education about healthy nutrition, but they indicated that they are open to learn more about feeding their children healthy if they would have the opportunity. Two parents stated that they had no idea if they were giving the proper food to their child. One mother just had a baby and she was still planning on getting advised on healthy nutrition. The other parent, a father, said that he was not really paying attention to the food he is serving whether it is healthy or not and therefore he does not know if it is healthy. The reason for that, according to him, is that he is working all day and he comes home when the child is already sleeping. The mother of the child is always buying the food and feeding the child.

2. The perspectives of parents on the causes and prevention of malnutrition

Malnutrition in young children in the eyes of parents is a matter of money. Mostly all participants indicated that malnutrition is due to a shortage of money to buy healthy food. Respondents said that getting money is not an easy thing since jobs are scarce. If children do not get enough food because there is an inadequate amount of money, feeding your baby healthy is impossible. Consequently, children could end up malnourished.

R1: 'Malnutrition becomes a problem when certain mothers or fathers lack money to buy food that contains nutrients. So that's why it's a big problem and it comes due to lack of finance to buy enough foods containing nutrients.'

The single mothers in the study also shared the idea that having not enough money is due to not having a husband who can provide money for them while they take care of the child:

R5: 'Because I am a single mother who is not working, everything recalls around financial constraints. […] I think if I had a husband I could maybe have him working, and than I would definitely live a better life.'

Three parents state that if there is little money for food, the child always comes first: the child gets food first; afterwards the parent can eat if there is food left.
Illness is also a risk factor that is mentioned by parents. A parent said that 'failing to immunise children' is therefore an indirect cause of malnutrition: if a child gets sick, he or she will lose apatite. R8, who has a malnourished baby himself, said that his baby is malnourished because of the loss of appetite due to malaria:

R8: 'For me what I gets to know by malnutrition, it's when a child in most cases they lose apatite for food. Sometimes they grow their bellies big. Their cheeks become fat. The whole body is small, but the stomach and the cheeks are big. My baby is malnourished yes. But she has malaria and no apatite for food. When they buy certain things to help her grow, at least gain some weight, but whatever the mother gives her, she doesn't eat.'

One parent also stated that a poor preparation of food could cause malnutrition:

R8: 'Preventing malnutrition for me is to give the children food on time and avoid giving them cold food. […] Like you eat food at supper, and give that food the next day to the children and at the end the children end up with swollen stomachs en cheeks.'

It is not only important that a child eats, but also what a child eats. Four parents shared the opinion that children have to get the right foods, which are healthy. If they do not, that bad kind of feeding can cause malnutrition. When discussing ways to prevent malnutrition, three participants said that giving breastfeeding is of great importance. Even doctors tell them to breastfeed well. Children also have to eat fruits regularly according to three parents.

R4: 'To prevent malnutrition you have practice giving food every day, you take fruits and you have to breastfeed daily.'

3. Obtaining knowledge about healthy feeding

Half of the participants indicated that they have not ever heard of prevention programs regarding malnutrition but they did get advise on healthy nutrition from people and institutions.
Every respondent shared the opinion that the best way to reach people about information concerning healthy feeding, is via radio and television. Especially radio is mentioned by respondents, since almost everybody has access to radios.

R5: 'Radio is the best way because people have radios. […] And phones, everybody has radio's and phones and they listen to it. At least 97% has access to radios.'

A respondent said that she watches programs on television where they show how to cook healthy. Respondents also listen to the radio where they broadcast specific programs regarding general information about healthy feeding your children:

R5: 'I know those radio programs about healthy food and what you should buy to feed the children. That's why I know that soya, millet, eggs are the right food to give the baby. It's on a specific time they're going to be there. There are specific presenters who speak of those topics. So I time those ones and I listen to those ones.'

Three participants mentioned that they were obtaining knowledge about healthy feeding from doctors in hospitals, clinics and nutritional offices. One participant did not yet get information from doctors because her baby was just born, but she was planning to get advise. The main advice doctors' give is about breastfeeding and what to do when the child needs complementary food: These respondents were in those medical centres because they had to immunise their child. When

R1: 'Doctors advise me to breastfeed my child regularly. When time comes I have to supplement, to prevent malnutrition but advised by the doctors and to put them to consultation.'

they came for immunizing, they also got the advice at that same moment.
Two participants told they never were advised by doctors about nutrition. One of them admitted that she dislikes big hospitals and that she actually never went to hospitals, because it was difficult for her to get there:

R6:' I don't like to go to hospitals because like our big hospital they are far. You can have little money and you cannot provide that money for transport to and from. You can make that to buy like tablets from the local health centres and give it to your baby. The problem there is accessing the transportation.'

Three participants did agree that doctors have to inform people more about healthy nutrition. If people go to see a doctor for their child, it has to be in the routine of those doctors to give that information.

R5: I think both radio and doctors should do it. So if they missed out on the radio, at least when you go to the health facility, somebody there is telling about it.'

One parent said that she got advice from church. Verbal communication with friends, family and neighbours was also mentioned as an important way to transfer information. Five participants said that people talk a lot with each other about nurturing your child and a lot of advise is given. A parent said: 'If you get advice from a friend, you take that advice very seriously'. Even if somebody does not get advise from doctors', radio or television, they can be kept informed true talking to their friends, family and neighbours.

R6: 'We do not have television or radio but I think when they now say it from the radio we can get it from other people. Friends can tell it around.'

R9: 'The easies way to reach me is maybe from my friends because of my condition, I have no place. I have nothing for my own, so to reach me for example the media it is very hard. Maybe a friend talking to me.'

Discussion

Principal findings

The objective of this study was to access the perspectives of parents on healthy nutrition in 0-2 year old children. Results show that the parents give their children mostly staple foods, while they do not necessarily consider them to be healthy. Vegetables were mentioned in particular when talking about healthy food, but nobody gave them to their child. The participants had various reasons for not giving vegetables: the child's appetite, the misconception that children are too young and weak to handle vegetables and mainly the lack of enough money. Also the idea that having a varied diet is healthy could not always be pursued due financial shortcomings. Half of the respondents did not even know what healthy food exactly was, because of insufficient knowledge about healthy feeding or the participants were never engrossed in healthy feeding practices. What also emerged is that three of the four children from single mothers were malnourished. They thought that the lack of financial support of the partner could cause them to not being able to buy enough (healthy) food for their children.

According to parents, the main cause of malnutrition in their children is the shortage of enough money to feed their children. The single mothers shared the idea that their single motherhood has a great contribution to the malnourishment of their child. These mothers believe that not having a partner makes sure that they do not have enough money to feed their child (healthy), since the partner usually provides money for food. These single mothers did not have the time to have a job, considering the fact that they have to take care of their baby. According to the participants, sickness of the child could also be a cause of malnutrition in their children. The child loses apatite when being ill and he or she could therefore not engulf enough nutrients. Hence, not letting your child immunize is indirect causing malnutrition, because the child could end up sick. Several parents believe another misapprehension concerning giving cold food. They are convinced that giving cold food is unhealthy and could cause malnutrition in children.

Half of the respondents have never heard of prevention programs with regard to malnutrition or healthy feeding practices. The participants feel that doctors could advise them more about healthy nutrition when they are at the health clinic for immunizing the child. According to the parents, people do not like to go to big hospitals since they are often too far away and transportation is too expensive. When discussing the best ways to reach people when spreading information about healthy nutrition, radio is mentioned as the best medium. According to the participants, almost everyone has access to radios. Verbal communication with friends,

neighbours and family are also considered to be a good medium to get information from, since people talk a lot with each other about feeding practices and advice from them are taken very seriously.

Implications

The major cause of malnutrition according to parents was the lack of money and this finding is consistent with findings in other studies.[18,19] Studies have shown that children from poor and middle socioeconomic households were more likely to be malnourished than children from richer families[18] and Victoria et al. strongly showed that malnutrition in children aged under five is associated with inequalities in financial recourses of their parents.[19] This evidence is comparable with the results of another study that was conducted in low-income counties.[20] It is even shown that food expenditure per consumption above the baseline has a significant association with better nutritional status of children.[21] Even though this and most other studies conclude that poor people do not always have enough money for adequate nutrition for their children, a study of A.V. Banerjee et al (2007) stated that the average person living on less than a dollar a day, does not seem to use every cent on trying to get more nutrition.[22] Banerjee examined 13 developing countries and the average percentage of the money that is spent on food, lies between 56 to 75 percent in urban areas. It is possible that people could spend the rest of their income on other highly indispensible necessities, yet among the nonfood consumptions that the poor spend, they spend significant amounts on alcohol and tobacco.[22]

The single-mothers in this study stated that the lack of money to buy enough and/or healthy food is correlated with the fact that they do not have a partner. Sub-saharan Africa has a large number of single-mother households, which is exacerbated by to wars and the HIV and AIDS pandemic.[23] Not having a partner could have a high impact on the financial status of the mothers. The participants indicated that is was the role of the man to provide money and another study also supports the vision of the gender division, that the father in the household should supply money in order for the mother to eat, feed and breastfeed[24] and it is also concluded in a study of P. Engle, the percentage of the income of the fathers they conduce to the food budget of the household has a strong association with the children's nutritional status.[25] A research in Peru showed that children who do not regularly see their fathers during childhood were more likely to be stunted.[23] Single-mother households have less economic resources than two-headed households and therefore, the single motherhood is closely linked to a less optimal nutritional status of the child.[23] That the only man in this study has a malnourished child could be due to the fact that the malnourishment of his child has no direct relation with the financial recourses of his family. His child is malnourished due to malaria, which causes loss of apatite and therefore causes

malnutrition. It is clear that maternal economic resources are important for reducing food insecurities that could lead to malnutrition in children.[26] However, the existing literature is not fully consistent with regard to the association between 'single-mother households' and 'better nutritional status of the child'. That single mothers most of the time have children with a less optimal nutritional status compared to two-headed households, does not mean that it is all due to females. Female-headed households are namely more likely to accommodate better nutritional status than male-headed households.[21] The reason for this finding could be that woman are more child-centred, woman can buy better food for the child and take the child to clinic when it is ill.[21] In contradiction with the earlier mentioned literature, other literature states that single mothers with good financial status could have children with bad nutritional status.[23] This could be because the mother is working and therefore is often away for work most of the time and therefore she does have little control over the (amount of) nutrition the child receives.

Knowledge about healthy feeding was also an item of discussion during the interviews. Half of the respondents did not even know what healthy food exactly was, because of insufficient knowledge about healthy feeding. The lack of knowledge may arise from the fact that most of the respondents dropped out of school after primary school. This insufficient knowledge could also lead to misconceptions according to what is healthy and what is not, since a respondent had the believe that giving cold food resulted in malnutrition and another respondent thought that little children are too weak to eat vegetables. A review study from R. Hornik explained that a major share of malnutrition in children is caused by incorrect beliefs about food, health and feeding practices.[27] Also two other studies affirm the association between the lack of knowledge of optimal feeding practices and cultural beliefs of parents, and the deteriorations of children's nutritional status.[24,28] It is important to provide accurate information about healthy feeding practices to parents and other caregivers to take away these incorrect believes as much as possible. Several studies conducted in China, Vietnam and India showed the positive effect of educational intervention on nutrition knowledge and practice at parents.[29-31] Therefore it is essential to give parents the knowledge and information that is necessary to help them to improve their feeding practices.[9] Also man should play a major role in the education program. It is necessary that men will be educated to carry out appropriate child care in order to influence their wives in a positive way.[24]

In this study, prevention programs are not well known. Participant said that they were not aware of intervention programs regarding healthy feeding and malnutrition. This finding is in contrast with the literature in the introduction; many plans and intervention programs concerning infant malnutrition were established for parents.[2,5,6,7] The problem that parents were not aware of

programs could be explained by the reason that parents are not reached sufficiently. Bryce et al. noted that the health of children in developing countries like Uganda often remain poor, since many mothers and their children who need public health interventions, are reached inadequate.[32] Participants also identified the issue of not being reached by intervention programs regarding healthy feeding. On the question 'What would be the best medium to reach people about advise and information about healthy feeding practices?' all participants answered with 'trough radio'. They stated that practically everyone has access to radios and that programs about healthy feeding via radios would reach them sufficiently. The statement that the majority of poor people have access to radios is supported by findings in the study of Banerjee. In his research conducted in South Africa and Peru, he found that the ownership of a radio in households living under one dollar a day is 70 percent.[22] Participants said that the minority who do not have radios themselves, still could be kept informed about the content of the radio programs through verbal communication with family, friends en neighbours (who do have radios). Intervention programs would do well to anticipate on these findings by including radios in their interventions.

Limitations & strengths

Even though this study is carried out with great diligence, there are some limitations that were inevitable. The study could be limited due to the size of the research sample: the study contained only eight participants. Interviewing more respondents was not a realistic option given the limited research time of three months. Since the cultural differences are present between the interviewer and the respondents, social misunderstandings could be occurred leading to dishonest answers or wrong interpreted answers. However, these misunderstandings were reduced as much as possible since the researcher was trained in intercultural research ethics before conducting the interviews. The researcher also had Lugandan lessons (the local language) to make the participants comfortable by saying salutations in their native language. There was also a Ugandan researcher present during each interview. This researcher could deduct any inconveniences and misunderstandings that occurred before, during and after the interviews by intervening and acting as an interpreter where necessary.

Another strength of this research was that another researcher attended the first two interviews to give feedback on interview skills. Besides, during analyzing, codes were compared between the two researchers and, where necessary, adapted which benefited the inter-observer reliability. There is attempted to get a research sample as varied as possible to include as many perspectives as possible: parents of malnourished children and not malnourished children were included, as well as fathers and mothers and parents from different slum areas in Kampala.

Conclusions

This study aimed to clarify the perspectives of parents concerning healthy feeding practices, malnutrition and possible contributions to intervention programs about healthy feeding. The major cause of malnutrition in young children is the lack of money to provide enough healthy food. Closely linked to this, is the finding that single mothers are more likely to have malnourished children, due to the fact that these single mothers have relatively poorer financial resources than mothers with a partner. The lack of knowledge and the presence of misconceptions concerning healthy food and feeding practices influence the way parents cook and feed their children and it could result in malnutrition in children. These results reaffirm that health education should be improved; the local misbeliefs and inadequate knowledge have to be eliminated. Interventions should utilize radios and implement them for reaching people about advice that contains adequate information about healthy feeding practices. To increase the reliability, further research with more respondents is recommendable.

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