

A STUDY TO ASSESS HEALTH
EDUCATION BEING GIVEN TO MOTHERS
OF MALNOURISHED CHILDREN IN THE
PAEDIATRICS UNIT OF U.T.H.

BY

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ABBREVIATIONS

1. A.H.R.T.A.G. = Appropriate Health Resources and Technologies Action Group.
2. P.E.M. = Protein Energy Malnutrition.
3. U.N.I.C.E.F. = United Nations International Children's Emergency Funds.
4. U.T.H. = University Teaching Hospital.
5. W.H.O. = World Health Organisation
6. Z.D.H.S. = Zambia Demographic Health Survey.

STATEMENT

I hereby certify that this study is the result of my own labour and independent investigation. I have indicated the various sources to which I am indebted throughout the text and reference.

Signed:.....*Albin*.....

Date:.....*7.4.99*.....

DEDICATION

I dedicate this study to my dear (late) husband Alfred, late parents, Mr. and Mrs. Kapeu and my children Kayembe, Kalunga, Kasweka, Kapeu, Chilunda, Lifuti and Chihinga for the moral and material support.

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ABSTRACT

The aim of the study was to assess health education being given to mothers of malnourished children in the Paediatrics Unit of U.T.H. Health education in simple health messages adopted to local cultural practices in native language as emphasized by the Pakistan Medical Journal (1996) is vital. The sample of 50 respondents was drawn from Ward A07 in the Paediatrics Unit. Data were collected through structured interview questionnaires and analysed manually. Literature was obtained from books, articles and abstracts.

The results of the study revealed that regular and planned health education is not being given to the mothers among whom are the vulnerable (singles, widows, divorcees and readmissions). The results also showed that nutrition demonstrations are not done. The nurse/patient ratio was found to be very poor.

From the above findings, it was recommended that health education provision and the nurse/patient ratio be improved to empower mothers with knowledge in malnutrition. This in turn will minimise health demands and cost at individual and national levels. This information is relevant to health care providers so that they can devise appropriate strategies to assist the families.

CHAPTER 1

INTRODUCTION AND BACKGROUND INFORMATION

COUNTRY PROFILE

Zambia, which was previously known as Northern Rhodesia before it became independent in 1964, is a landlocked country. According to the (Z.D.H.S.) 1992. It covers an area of 752, 614 Square kilometres and consists of about 2.5 percent of the total area of Africa. It shares borders with Congo and Tanzania in the north, Malawi and Mozambique in the east, Zimbabwe and Botswana in the south, Namibia in the south west and Angola in the west.

Administratively, the country is divided into nine provinces and fifty seven districts. It has a tropical climate. Rainfall is good in most parts of the country besides the southern and eastern parts which have less rainfall leading to occasional droughts. The geographical presentation thus given indicates that Zambia has a lot of potential for agriculture, animal and poultry farming. The nation therefore, with all these resources should be self sufficient in food if they are all well utilised.

According to the Zambia Demographic and health survey (1996), the total population of the country is 7.8 million people. 42% of this population is in the urban areas which are mainly along the railway line that is from Livingstone to the Copperbelt Province. The larger portion of the population (58%) is in the rural areas.

Copper mining is the country's main economic activity accounting for 95% of export earnings, inspite of the fall in its price on the international market according to the Zambia Demographic and Health Survey (1992).

Health facilities are available in every province though not enough for the various areas. According to the Z.D.H.S. (1992), there are 84 hospitals and 1,052 health centres in the whole country including the mission hospitals.

The area of study in this research project is the Paediatrics Unit which is within the University Teaching Hospital (U.T.H). The University Teaching Hospital is situated in Lusaka, which is the capital city of the country. It is the National referral hospital that trains the country's doctors as well as nurses, midwives, theatre nurses and other paramedical staff.

The hospital serves a population of 2,686,709 people from Lusaka region alone plus others referred from the various provinces according to the Bulletin of Health statistics (1992). The hospital attended to 414,078 patients in the year 1997 according to the hospital report. Out of these patients 93,746 were admitted in U.T.H and 19,325 were admitted in the Paediatric Unit, (See Table 1)

The children admitted in the Paediatric Unit are those with medical illnesses only. According to the Paediatric Unit records (1997), malnutrition is among the common illnesses at the hospital and actually the second highest cause of mortality in the hospital following acute respiratory

infection and pneumonia among the children below 5 years (See Pie 1).

Malnutrition causes high morbidity and mortality rates in children below five years of age worldwide especially in the developing or third world countries in which Zambia falls. In the summary report of the International conference on Nutrition (1992), a scope and dimension of nutritional problems are given internationally. The report states that hunger and malnutrition remain the most devastating problems facing the majority of the worlds poor. A further observation made, amplifies that despite improvements in food availability, health and social services, malnutrition exists in some form in almost every country. The report further says that one out of five persons in the developing world is chronically undernourished, 192 million children suffer from protein energy malnutrition (P.E.M.) and over 2,000 million experience micronutrient deficiencies.

The effects of bad nutrition are many and if not well managed, a lot of problems can be encountered. Huffman and Luan (1994) advise that good nutrition is very important to prevent malnutrition and diarrhoea. They say that 184 million children in developing countries are malnourished and those that are malnourished are predisposed to severe diarrhoea and many other diseases which worsen the situations leading to a high fatality rate. The authors, stress that diarrhoea and malnutrition are a two way problem, that is diarrhoea leads to malnutrition and malnutrition leads to diarrhoea.

Children are valued by all nations because they are the future leaders. The United Nations International Children's

Emergency Fund (U.N.I.C.E.F) 1992 emphasizes that protecting the growing minds and bodies of young children should have first call on societies' concern in good times and in bad, in boom or recession and in peace or war.

The struggle to eradicate, control and prevent malnutrition has been on for many years and all nations have been involved. The purpose all these efforts is to have healthy nationals that can contribute significantly to their nations' development. Krause and Mahan (1984) state that the United Nations (U.N.) has been very active in this field of malnutrition prevention for many years starting as early as the eighteenth century.

Good nutrition is a shield to many infectious diseases according to Moon and Gillespie (1996). They explain that the decline in infectious diseases and growth of the various populations are due to key factors like improvements in nutritional status, better living conditions and medical services. They further stress that medicine should concern itself with prevention of malnutrition and not just concentrating on actual treatment of diseases for it to be effective.

The nutritional status in many Africa countries still remains poor. In Uganda for example, the Demographic and Health Survey (1995) states that 58% of the children below four years in a study to assess the nutritional status of all the children in the country were stunted. Feeding problems and infections, the survey further reveals are the main causes of stunting besides other factors like economic, cultural, biological, political and environmental.

In Zambia, the government and many other organisations spend a lot of resources to combat this problem. In its health priorities and programmes, the Z.D.H.S. (1996) states that the Zambian government is committed to the objectives of attaining health for all by means of improving the accessibility of health services and reducing morbidity and mortality rates due to malnutrition. The survey further shows that the government through the National population and Development Programme and Health Reforms hopes to reduce the percentage of the under weight children (0-5 years) from 23% to 18%. This commitment was made in view of the escalating numbers of children that are underweight in the whole country.

In support of the fact that malnutrition is country wide, the Health Reforms Quarterly Bulletin (1997) reports that 68% of children below 5 years were found to be malnourished.

In Lusaka, the malnutrition situation is not any better inspite of the city being the capital of the country with several health centres in almost every compound and having a fairly literate population. The Paediatric Unit according to the statistic records (1997), as shown in table 1 attended to 2, 329 malnourished children referred from the clinics in Lusaka region. The number was higher in the previous years because patients preferred coming to the hospital believing that care was better and leaving the clinics under utilised.

The Paediatrics Unit, has nine wards. Initially, malnourished children were nursed in the general wards with other

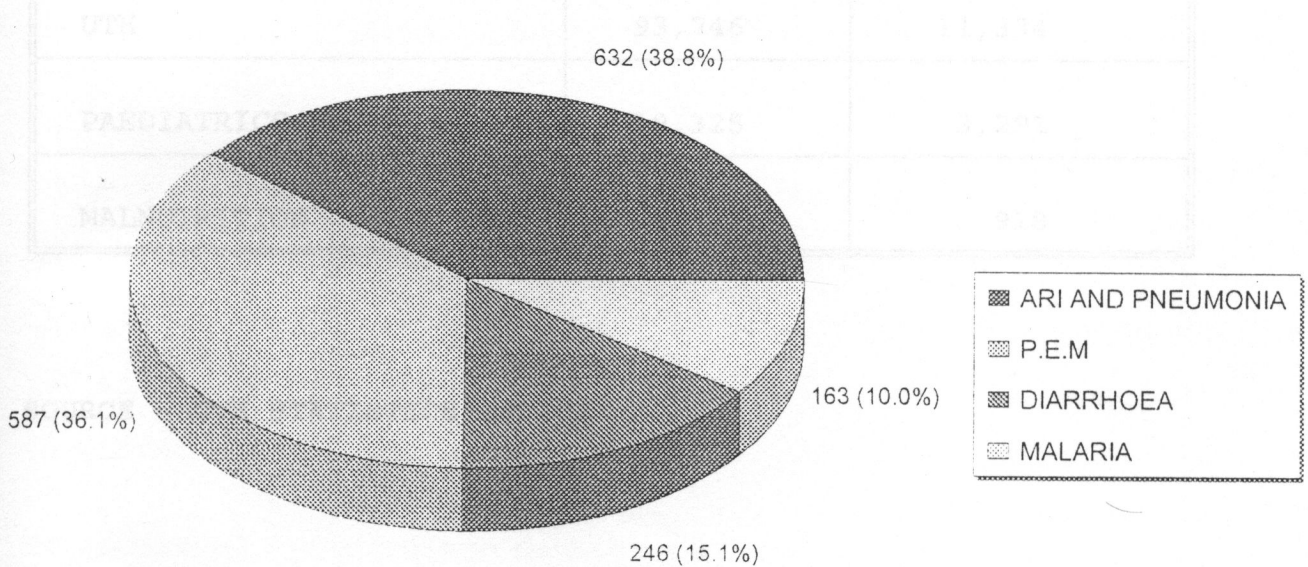
patients but due to the increase in numbers, a separate ward called A07 was created specifically for their management. Ward A07, according to the hospital statistics has a capacity of 60 beds which are sometimes shared between 2 children. The ward is fairly well equipped for child care. Besides those being nursed in the ward, many more malnourished children are attended to in the Maternal and Child Health (M.C.H.) clinic in the Paediatric Unit on an outpatient basis.

The World Health Organisation (W.H.O.) 1986, states that malnutrition usually stems from poverty and ignorance of what the right foods are to eat. The root cause of the problem is in the home and to solve it, the family must be helped to learn better habits of nutrition and must be served by better health care.

Ignorance, being one of the main causes of malnutrition should therefore be minimised in the families. This can be achieved mainly through health education programmes in the hospitals and clinics.

FIG. 1

HIGHEST CAUSES OF DEATHS
IN PAEDIATRICS IN 1997



SOURCE: UTH STATISTICS OFFICE

UNIVERSITY TEACHING HOSPITAL
(BOARD OF MANAGEMENT)

HEALTH INFORMATION SYSTEMS

TABLE 1: 1997 UTH AND PAEDIATRICS UNIT ADMISSIONS AND DEATHS

	ADMISSIONS	DEATHS
UTH	93,746	11,334
PAEDIATRICS UNIT	19,325	3,291
MALNUTRITION CASES ONLY	2,329	918

SOURCE - UTH STATISTICS OFFICE

STATEMENT OF THE PROBLEM

The problem of Health Education being given to mothers of malnourished children has been of great concern in many hospitals including the Paediatric unit of the University Teaching Hospital. During the visits to the Paediatric unit, one is able to observe mothers with malnourished children seeking treatment. The situation in the wards is not better either, because many children who are admitted have to share beds. Informal discussions with the nurses always revealed that the problem of malnutrition was real in the Paediatric hospital under study.

Poverty in Lusaka cannot be ruled out. According to the Zambia Demographic Survey (ZDHS 1996), the combined effects of the fall in copper prices, a rise in oil prices, the slow pace of industrialisation and a heavy dependence on imports have put the country's economy under pressure.

Malnourished children are usually admitted to the hospital for periods ranging from two weeks to a month. Mothers are not often aware that their children were admitted for malnutrition, but that their children were bewitched. Ebrahim (1992) says that the influence of Socio-cultural and traditional beliefs, such as witchcraft is very strong. He further states that all attempts to change this belief meets with strong resistance.

When mothers are asked about what they feed their children on, most of them are quite confident that they feed their children well. They even give examples of foods they give their

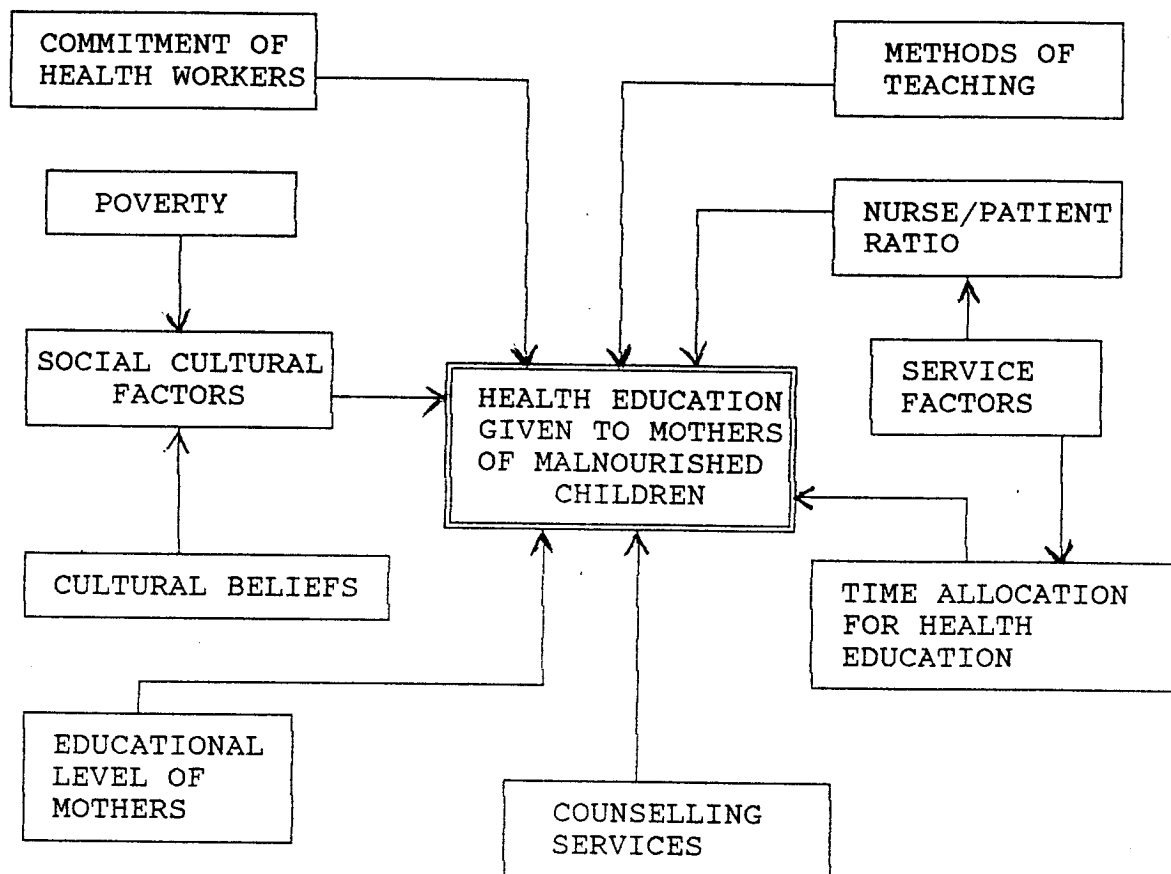
children. These include foods like bread, tea, fanta, buns and nshima. These foods are often seen on the bedside lockers in the ward. This is evidence that the mothers lack appropriate health education on nutrition. When mothers are asked about what help the nurses and other health workers render to them, most mothers mention medication. Only a few talked about health education being given to them.

Ignorance in proper feeding practices is evident in most mothers who have been to the hospital before for either the same problem with the same child or with another member of the family but for same problem of malnutrition. This indicates the continuity of malnutrition in the same family even after being in the hospital. The frequent and long lasting admissions are expensive to both parents and the nation. Hunger and poverty may be difficult to prevent but ignorance about nutrition can be minimised if the mothers are made to understand the root cause of the problem they are facing. Health education at the hospital according to the nurses and nutritionists is being given routinely. Demonstrations on how to prepare nutritious diets are given and immunisations are also given to protect the children from infectious diseases.

Williams and Baumslag (1994) states that all the problems of maternal and child health can be improved in some degree by health education, that is, by motivating and persuading people to make vital but quite often minor modifications in their lives. The process of changing people's behaviour through health education they further say, requires awakening or enhancing an

awareness that a problem exists, creating an interest and desire for more information, convincing people that there is a practical solution and helping people to make the needed change a behaviour.

DIAGRAM ANALYSIS OF FACTORS INFLUENCING HEALTH EDUCATION TO THE MOTHERS



JUSTIFICATION

A slightly similar study was done in 1987 by a student of Post basic Department, UNZA. The study was done to find out health education given to mothers in the whole Paediatric hospital and not specific to malnourished children. The results showed that not all mothers had the chance of getting health education and that those who got it appreciated it. The study concluded that there was need to give mothers information on child care at home.

The study also recommended that waiting mothers should be incorporated in their children's care. The proposed research study intendeds to go into more details to find out the type, length and frequency of health education being given to the mothers. It also intends to find out who are active in the education programmes and the teaching aids used to improve the children's nutritional status. In view of the increasing numbers of malnourished children at the Paediatric hospital the researcher found it necessary to carry out a study to assess health education being given to the mothers of malnourished children.

The study is therefore justified in that the results of the study will be submitted to the authorities of the Paediatric hospital. The study is also being conducted as one of the requirements in partial fulfilment of my nursing degree programme. It is hoped that some intervention will be done by University Teaching Hospital if the recommendations will be accepted and seen to be feasible by management.

HYPOTHESES

1. Health education would be effective if the mothers had basic education, because they would be able to implement what they are taught.
2. Health education has no impact on mothers of malnourished children because of unsuitable teaching methods used by nurses.
3. Health workers can only give health education to mothers if the nurse/patient ratio improved.

OBJECTIVES

GENERAL OBJECTIVES

To assess the health education being given to mothers of malnourished children in the Paediatric hospital.

SPECIFIC OBJECTIVES

1. To determine the type and frequency of health education being given to mothers of malnourished children.
2. To assess the content of the health education.
3. To determine the suitability of health education for behaviour change and applicability in the homes.
4. To assess the educational status of the mothers.
5. To assess the Nurse/patient ratio.
6. To use the results to make recommendation to UTH Paediatric hospital.

ASSUMPTIONS

The researcher's assumptions are that malnutrition is persisting in children because health education is not being given. The central theme is to determine health education given to the mothers. There are several factors that could probably come into play to perpetuate malnutrition in children such as; lack of health education to the mothers or inadequate health education; mothers can't comprehend what is taught; what is demonstrated is not applicable in homes; and bad timings in health education leading to divided attention on the part of the mother.

INDICATORS AND CUT-OFF POINTS FOR VARIABLES

VARIABLE	INDICATOR	DESCRIPTION
<u>Dependent variable</u>		
Health Education	Adequate	Reduction in admissions of malnourished children.
	Inadequate	Increase in admissions
<u>Independent variables</u>		
Information being given	Adequate	Mother understands, accepts and change's in behaviour as required.
	Inadequate	Mother does not change in behaviour.
Nurse/Patient ratio	Good	At least more than 2 staff directly involved in health education.
	Poor	Less than 2 staff involved in health education.
Educational level	High	When the mother understands what is being taught.
	Low	If the mother does not demonstrate an understanding of what is being taught.
Cultural factors	Strong	when the person sticks to the cultural beliefs

and does not accept
change easily.

Moderate

When a person does
not stick much to
to the cultural
beliefs and
accepts change.

Staff commitment
to health education

Good

When all health
workers spend
sufficient time
for health
education.

Poor

When only a few
health workers
give required
health education.

Counselling

Adequate

When health workers
give enough, relevant
and accepted choices
to mothers.

Inadequate

When health workers
don't discuss
relevant issues
with the mothers.

DEFINITION OF TERMS

For the purpose of this study the following operational terms and definitions are used.

- Health** - Is a state of complete mental and physical well being and not just the absence of disease or infirmity (W.H.O. 1945).
- Education** - Bringing up systematic instruction.
- Knowledge** - Knowing or familiarity gained by experience.
- Nutrition** - Nourishment or receiving or supplying food.
- Counsel** - To empower a person by giving them choices to make a decision.
- Patient** - A term used to describe anyone whose mental and physical state is not completely well.
- Malnutrition-** A state of poor nutrition or ill health due to poor nutrition or nourishment.

CHAPTER 2**LITERATURE REVIEW****2.1 INTRODUCTION**

Ill health due to poor nutrition is a problem that has been recognised for many years worldwide. The magnitude of the problem has been felt more in the developing countries where poverty and ignorance are common. The effects of poor nutrition are serious leading to high social and economic expenditures. Malnutrition is common especially among the children whose bodies grow rapidly leading to high morbidity and mortality rates. Last (1989) states that the quality and quantity of food are important determinants of child health. Diseases occur if food is deficient in amount and lacks an essential ingredient such as amino acid or vitamin. Last (1989) further emphasises that the nutritional needs of pregnant and lactating women, infants and growing children are of special concern to prevent disease development. Sensible eating promotes good health she further advises.

Ignorance of what causes malnutrition is one of the major factors contributing to malnutrition prevalence. Many people in the developing countries attribute malnutrition to witchcraft. This is because education facilities are not so abundant and instead cultural beliefs such as witchcraft are more common. Many countries both developed and developing have adopted different strategies of combating malnutrition. One of the strategies developed is

health education and counselling of the communities to make them aware of the causes, signs, symptoms and management of malnutrition. And also to make them change to better health habits. Beverly (1987), explains that eradication of malnutrition depends on many sectors other than the health sector. High amongst these sectors is the education sector, that should provide health education facilities in primary and secondary schools especially for girls across the world.

Identified literature relevant to the research problem is conveniently considered under the following headings:-

MALNUTRITION, SOCIAL, ECONOMIC AND CULTURAL FACTORS AND HEALTH EDUCATION.

2.2. Malnutrition

Malnutrition, being a common disease requires clarifications on what it is and what causes it in order for the communities to adequately manage it. Malnutrition is bad nutrition according to Byrne and Bennett (1987). Nutrition is supplying nourishment or food to the body for growth, repair and work. Food, they further explain, provides the body with materials for:-

1. Growth, repair and reproduction
2. Production of heat
3. Reaction of the body against disease
4. Regulation of body processes
5. Building body cells, fluids and bones
6. Keeping a proper water balance.

The main substances or nutrients from food carrying out these functions accordingly are:-

1. Proteins or body building materials found in meat, fish, eggs, milk, beans, nuts and also in cereals and vegetables.
2. Carbohydrates, found in cereals, root staples and fruits.
3. Vitamins, found in green vegetables, fruits, meat, fish milk and eggs.
4. Fat, found in meat, fish and vegetables.
5. Mineral salts found in meat, fish, milk, salt, vegetables, fruits etc.
6. Water also found in all foods eaten.

Byrne and Bennett further explain that when a balanced diet containing these nutrients is taken, the body develops well. If however, one of these nutrients is not well provided, then the body becomes sick or malnourished.

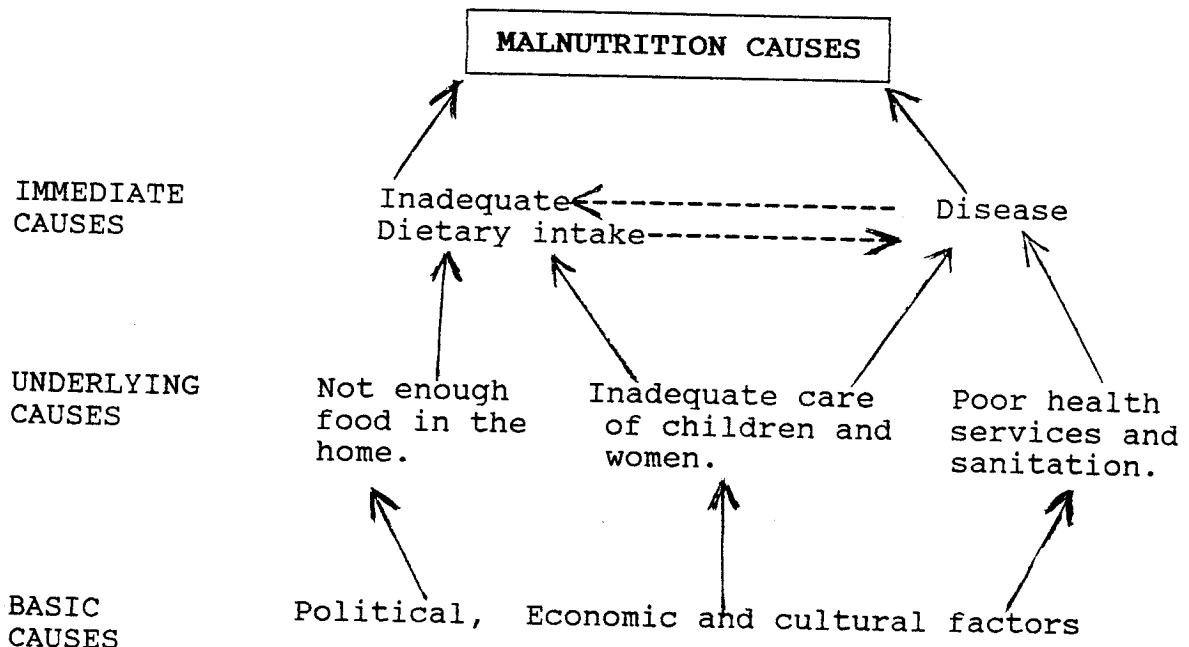
To grow strong and health, WHO (1994) reports that children need a lot of healthy food, care and attention. The weight of a growing child increases a little every month. When children do not get enough food of the right kind, they become sick and stop growing. When the child is not growing properly or is sick, his weight will not increase. Therefore, WHO emphasises, mothers must know which foods are good for their children and how to give those foods to them in a way that they will like. Breast feeding is best and bottle feeding may be dangerous who further emphasises.

There are many disabilities that occur as a result of malnutrition. AHRTAG (1997), explains that malnourished children may have learning disabilities, be blind or partially sighted or have hearing loss. AHRTAGS further explains that brain development in young children may be impaired depending on the severity of malnutrition and when it occurs in the child's development. This is as a result of micronutrient deficiencies that is deficiencies in iron, folate, iodine, vitamin A and D. To prevent these disabilities, the author advises promotion and support of breast feeding and good nutrition.

Understanding the causes of malnutrition can help health workers to promote good nutrition (1992) explains.

The author gives the common causes of malnutrition in 3 main headings:-

1. **Immediate causes:-** which are due to inadequate dietary intake and diseases such as diarrhoea, acute respiratory infections, measles, malaria, worms and AIDS.
2. **Underlying causes:-** which are as a result of not having enough food in the home, inadequate care of the children and women and poor health services and unhealthy environment.
3. **Basic causes:-** which are political, economic and cultural situations which affect underlying causes (see diagram).



Malnutrition is a difficult and dangerous problem to deal with because, unlike diseases which cause immediate pain and thus attract attention, malnutrition is not easily seen or experienced by the society states AHRTAG (1996).

Malnutrition extent or pain is felt by the decision making organ of society mainly through statistics. In Zambia, the statistics about malnutrition do not have a good story to tell because the national nutrition situation has been worsening over the years AHRTAG further reveals. The under five (5) mortality rate has increased from 152 in 1981 to 191 in 1991 and up to 203 in 1996 per 1000 live births out of which malnutrition accounts for more than 40% of the cases. This means that more than one child in every five die before 5 years of age. AHRTAG concludes that the results of the malnutrition mortality study showed that that 50 % of children admitted to hospital for malnutrition complications do not survive their hospital stay.

2.3. Social, Economic and Cultural Factors:-

In surveys carried out in Tanzania with the Tanzania Food and Nutrition Council in 1988 malnutrition was found to co-exist with poverty in 90% of cases reports Morley (1989). The main nutrition problem that was found in Tanzania was low food intake rather than a deficiency of specific nutrients. The surveys also noted that malnutrition was common because the government concentrated on cash crops like sugar, cashew nuts, coffee and tea. Food industries of nutritional importance such as flour milling, meat and dairy industries and fisheries have instead been neglected. This monetary economy growth has attributed to malnutrition because money was spent on items like beer, iron roofing, radios, shoes etc. instead of adequate food.

Poverty in Zambia is unquestionable. The National Strategic Health Plan (1995 - 1999) in an overview of poverty in Zambia states that 69% of the national population is estimated to be very poor. Poverty is not likely to improve and so the best way to help the nation in tackling poverty diseases like malnutrition is by allocating the available resources in a more cost affective way the plan reveals,. This, accordingly, will be achieved through redistribution of resources from cost-ineffective hospital care to more cost-effective primary care and first level referral care at the district hospital level and below.

treatment of diarrhoea, giving long leave to expectant and lactating mothers, good water supply, good waste disposal systems, coverage of immunisations, supplementary feeding programmes for pregnant and lactating mothers et cetera helped a lot in lowering the morbidity and mortality rates.

Illiterate or impoverished mothers may dilute formulas improperly or purposely overdilute them in order to save money states Wilmonth and Elder (1995). In their studies conducted in Asia, they found that infant mortality rates were 5 times higher for exclusively bottle fed infants and 3 times higher for mixed fed infants than for those exclusively breast fed. This, they further explain is because often infant formulas are diluted with contaminated water and equipment.

According to Abiodun (1990), the main cause of malnutrition in the Benin city of Nigeria are:-

1. Decline in breastfeeding and early introduction of commercial products that are overdiluted and contaminated.
2. Weaning problems such as early introduction of single foods of low energy density and nutritional value, infrequent feeding, abrupt weaning and contaminated weaning foods.
3. High prevalence of diarrhoea and infections.
4. Food scarcity for the prevention and management of malnutrition. Abiodun (1990), further advises the use of soya beans.

Practices of families are influenced by cultural beliefs which in Zambia are common, Hara (1987) states. These cultural beliefs, she further explains are deep rooted and need special care to unfold them so that the society can go with the wind of change - that is change to modern practices that prevent malnutrition. Health education is one of the major tools in reaching this goal.

Infant and under five mortality are related to the level of others' education states Jelliffe and Jelliffee (1985), conclude. This fact is documented by data from Africa and Asia that shows that female education is important to the long term improvement of infant and child health.

Stunting is strongly associated with the education level of both parents and with the family assets, states Bouvier (1995). Surveys repeated annually during 5 years to a sample of 491 families in Sikasso region of Mali showed that stunting inspite of a relatively favourable geographical situation, was prevalent mainly due to low educational level of parents than socio-economic factors.

Most of the mothers in the Paediatric hospital have not gone much in education and those that have gone to school probably had no lessons in nutrition. The ZDHS (1996), gives statistics that show that more than half of the women in the country have no secondary or primary education. The survey further gives figures that show that children from such mothers country wide have a higher evidence of malnutrition. It is important therefore to

stress the need to counsel them on nutrition and child care when they come to hospital.

2.4. Health Education and Counselling:-

Health care that is helpful and useful to the patient must always be based on the individual's particular health needs, states Willians (1982). For this reason, he further advises that finding out what those needs are and planning with the patient the best way of meeting these needs is a necessary beginning and continuing part of patient care and education. Health counselling in its broad sense involves this type of activity that is helping the patient to meet personal health needs.

Health counselling is important irregardless of who gives it, be it the nurse or doctor, nutritionist or physiotherapist. It is the ability of health professionals to respond to patients' health concerns that is important to the patient emphasises the Nursing Times (1996).

The Pakistan Medical Association Journal (1995), gives results of a study done on 135 children with malnutrition and from a poor urban population of Karachi City. The children were enrolled for rehabilitation by health education and growth monitoring as out patients. 89% of the children showed satisfactory recovery during a mean follow up period of 2-3 months. Mainstay of this study was simple health messages adopted to local cultural practices in native language. This simple strategy can go a long way in preventing and treating malnutrition in the Paediatric

Unit as well.

Consumer education is not a luxury but a necessity if clients are to receive maximum benefit from today's knowledge of treatment, prevention and control of diseases according to Leaky and Jones (1992). They give the following constraints cited by nurses as interfering with health teaching:-

1. Lack of time, heavy workload and inadequate staffing.
2. Lack of knowledge and inadequate preparation to teach.
3. Lack of nursing service support.
4. Poor communication between members of the health team.
5. The client does not request information. All these according to Leaky and Jones (1992), can be challenged provided the nurse believes in the clients' 'right to be informed'.

The ZDHS (1996) states that almost every compound in Lusaka has a health centre that gives health education to mothers. The objective of reducing malnutrition through health education, the survey further emphasises will only be achieved if the parents are made to accept, understand and participate fully in the health education programmes. Good parenting, the survey continues is an important social skill that should be explored and used in child health. The children's needs are not likely to be met by chance, instead, persistent and planned action on several fronts has to be taken. The report on health education done by the Ministry of Health National Workshop (1988), reveals that health education can yield profit only when the community

to which it is given responds favourably by acting or behaving in the desired way. People can only respond favourably when they are convinced that the advice given is really workable and this entails hard work on the part of the educator. The report further emphasises that the work of a health educator demands more than distributing leaflets, posters and booklets but that good health education should be community oriented.

The main focus of government policies towards improving the nation's health has been the emphasis placed on the need for individuals to adopt a more healthy lifestyle.

Gastrel and Edwards (1996), emphasise the need to change one's behaviour, particularly with regards to smoking, alcohol, diet, exercise and sex and that this will significantly reduce the risk of ill health and premature death. All health personnel are expected to play a key role in promoting a healthy lifestyle by education and advice they further advise.

CHAPTER 3

METHODOLOGY

3.1. Study Design

The purpose of this study was to assess health education being given to mothers of malnourished children in the Paediatrics Unit of University Teaching Hospital. A descriptive non-experimental research design involving exploration of variables influencing health education was used. Both qualitative and quantitative methods were applied. The design is non experimental because it did not require manipulation of the subjects. It is descriptive because it enables description of variables.

The design is suitable since it gives a quick descriptive account of the situation and provides baseline data for further research. The design did not require a lot of time in which to complete the study and it was relatively cheap.

3.2. Research Setting

The research was conducted from the University Teaching Hospital Paediatric Unit Ward A07 from the 28th of July to 20th August, 1988. Ward A07 of the Paediatric Unit form part of the entire University Teaching Hospital. Ward A07 was selected because it has a good representation of the population since the patients coming there are from all areas in Lusaka region and the people are from both high and low income groups. Ward A07 has a capacity of 60 beds which are shared most of the times between 2 patients. The

patients are specifically those with malnutrition and as such information specific to health education being given to mothers of malnourished children was easily obtained.

3.3. Study Population

The study population consisted of families in Lusaka region whose malnourished children were admitted to the Paediatric Unit between 28th July to 10th August, 1988.

3.4. Study Unit

Consisted of mothers whose children were admitted to Ward A07 for malnutrition.

3.4. Sampling

Sampling is the process by which the study subjects were chosen from a larger population. A population according to Treece and Treece (1986) is an entire number of units under study. Sampling in research is very important because the method used determine whether the study sample selected represents the entire population from which it was drawn.

3.6. Sample size

The Sample size was 50 mothers. This was the manageable size for the researcher since resources and time to do the study were limited.

3.7. Sampling Method

A convenience sample was used to select 50 clients being discharged from the ward that is the period under study. Those discharged from the ward were selected because they had stayed long enough to give information on health

education given. Convenience sampling is a non-probability method of sampling subjects, Polit and Hungler (1992) in which all the subjects that were discharged from the ward at the time of data collection were included in the study.

STUDY POPULATION	STUDY UNIT	SAMPLING METHOD	SAMPLE SIZE
Mothers of all ages.	Mothers being discharged	Convenience Sampling	50

3.8. Data Collection

Data collection was done in 10 days in July and August, 1998 during the working hours by the researcher and one research assistant.

3.9. Data Collection Technique

Collection of data was done using the structured interview schedule that comprises of both open and closed ended questions. This schedule was used because it is ideal in getting information on health education since it involves face to face interaction between the interviewer and the interviewee. It was ideal because it involved both the literate and illiterate mothers. Dates for data collection were 28th July - 10th August, 1998.

3.10. Ethical consideration

A written permission to conduct the research was sought and was given by the University Teaching Hospital Board of Management. The respondents also gave permission after verbal explanations for the study. Names of the clients were not obtained to ensure confidentiality. All

information obtained from clients was treated with utmost confidence.

3.11. Pilot Study

A pilot study was done in one day 2 weeks before the actual study. This was on the 14th of July, 1998. It was done to assess whether the structured interview schedule was appropriate, clearly phrased and also to test the reaction of the respondents. The study was conducted in Mtendere Clinic to prevent bias that could occur it was done in the same setting. Sample characteristics were similar to those in the main study. Only the sample size was reduced to 6 respondents.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1. DATA ANALYSIS

Introduction

This chapter provides some background information from 50 mothers of malnourished children conveniently selected from Ward A07 in the Paediatric Unit of University Teaching Hospital to assess health education provided to them. The data was collected using a structured interview questionnaire schedule from the 28th of July to 12th August, 1988.

Data Analysis

The data was first edited for accuracy and completeness and then entered on a mastersheet to avoid losses and mixing up. Responses from open ended questions were categorised, coded and also entered on the mastersheet for manual analysis. Frequencies were made by simple tallying.

4.2. Presentation of Findings

The findings of the study are presented in single tables and a graph. Tables, and graphs are used because they summarise results in a meaningful manner that can be understood by the reader. Descriptive statistics using frequency distributions and percentages have been used in tabulating the data. The key variables were cross-tabulated to establish relationships among the variables and thus draw up meaningful inferences from the study samples.

PRESENTATION OF RESULTS**Demographic Characteristics****TABLE 2: Respondent;s Age Ranges**

RESPONDENTS' AGE RANGES	FREQUENCY	PEERCENTAGE
Below 20 years	21	42
21 - 30 years	16	32
31 - 40 years	13	26
41 and above	0	0
TOTAL	50	100

Table 2 shows that most of the respondents are in the age group of below 20 years 21 (42%) followed by those in the 21-30 years age group 16 (32%) and 31-40 years had 13 (26%) respondents. There were no respondents in the 41 and above age groups.

TABLE 3: Respondents, Educational Background.

EDUCATIONAL BACKGROUND	FREQUENCY	PERCENTAGE
None	05	10
Primary	33	66
Secondary	11	22
College/University	01	02
TOTAL	50	100

Table 3 indicates that the majority of the respondents 33 (66%) had primary education followed by those with secondary education 11 (22%). 05 (10%) had no education at all and only 01 (02%) had college education.

TABLE 4: Respondents' Marital Status

EDUCATIONAL BACKGROUND	FREQUENCY	PERCENTAGE
Single	10	20
Married	27	54
Divorced	05	10
Widowed	08	16
TOTAL	50	100

Table 4 shows that most of the respondents are married 27 (54%) while 10 (20%) are single, 08 (16%) are widowed and 05 (10%) are divorced.

TABLE 5: Respondents' monthly income in relation to occupational status.

MONTHLY INCOME	OCCUPATIONAL STATUS			TOTAL
	NONE	SELF EMPLOYED	EMPLOYED	
None	38	-	-	38
<K100,000	-	08	01	09
K101,000-150,000	-	03	-	03
TOTAL	38	11	01	50

Most respondents 38 (76%) were not employed, or had no income. For those formally or self employed income was either less than K100,000 9 (18%) or between K101,000 - K150,000 3 (6%).

TABLE 6: Respondents' monthly income in relation to husband's monthly income.

RESPONDENTS' INCOME	HUSBANDS' INCOME				TOTAL
	N/A	<K1000,000	K101,000-150,000	>150,000	
N/A	14	17	05	02	38
<K100,000	09	-	-	-	09
K101,000-K150,000	-	-	03	-	03
>K151,000	-	-	-	-	00
TOTAL	23	17	08	02	50

For the married respondents, the additive effect of 2 incomes did not prove beneficial, as only 3 (6%) got K101,000-150,000 and 9 (18%) with less than K100,000. the rest of the respondents 38 (76%) relied on single or husbands salary.

TABLE 7: Respondents' marital status in relation to number of children.

MARITAL STATUS	NUMBER OF CHILDREN			TOTAL
	1-3	4-6	7-9	
Single	10	-	-	10
Married	18	09	-	27
Divorced	04	01	-	05
Widowed	05	03	01	08
TOTAL	37	12	01	50

Table 7 shows that most of the respondents 37 (74%) that is whether married or not had 1-3 children, followed by 12 (24%) who had 4-6 children and only 2% who had 7-9 children.

TABLE 8: Respondents, residential areas in relation to the educational level.

RESIDENTIAL AREA	EDUCATION LEVEL				TOTAL
	NONE	PRIMARY	SECONDARY	COLLEGE/ UNIVERSITY	
High	05	31	11	01	48
Low	-	02	-	-	02
TOTAL	05	33	11	01	50

Table 8 shows that 48 (96%) of the respondents live in high density areas and have attained primary education mainly 11 (22%) have gone to secondary school and 1 (2%) only has reached college level.

TABLE 9: Age of Respondent in relation to age of weaning

RESPONDENTS' AGE	AGE OF WEANING					TOTAL
	6/12	7/12-1YR	1 1/12-1 6/12	1 7/12-2YRS	N/A	
15 - 20	01	0	06	07	06	20
21 - 30	01	0	04	02	08	15
31 - 40	02	01	-	-	-	15
TOTAL	04	01	10	09	14	50

Table 9 shows that most of the mothers in all age groups weaned their children between 1 1/12 - 2 years. Only 4 (8%) weaned at 6 months and less.

SOCIO-CULTURAL PRACTICES**TABLE 10: Respondents' reasons for weaning in relation to the number of children.**

WEANING REASONS	NUMBER OF CHILDREN			TOTAL
	1-3	4-6	7-9	
Mother working	01	0	0	01
Child Sick	10	05	0	15
Child Old enough	10	07	01	18
N/A	16	0	0	16
TOTAL	37	12	01	50

Table 10 indicates that the majority 18 (36%) had 1-3 and 4-6 children and weaned their children due to either being old enough 18 (36%) or the child being sick 15 (30%). Only 1 (2%) weaned their children due to working.

TABLE 11: Common Home practices during illness in relation to the level of education.

COMMON PRACTICES	LEVEL OF EDUCATION				TOTAL
	NONE	PRIMARY	SECONDARY	COLLEGE/ UNIVERSITY	
Take child to clinic or hospital	04	25	11	01	41
Seek elders' advice	0	0	0	0	0
Seek withdoctors' advice	0	0	0	0	0
Other home remedies	01	08	0	0	09
TOTAL	05	33	11	01	50

Table 11 indicates that the majority of the respondents 41 (82%) that had either primary or secondary education took their children to the clinic/hospital when sick and only 9 (18%) mainly with primary education gave other home remedies when the child feel ill.

HEALTH EDUCATION AND STAFF COMMITMENT

TABLE 12: Respondents previous admission in relation to health education provided.

PREVIOUS ADMISSION	HEALTH EDUCATION		TOTAL
	GIVEN	NOT GIVEN	
YES	14	11	25
NO	16	09	25
TOTAL	30	20	50

Table 12 shows that 14 (28%) of the respondents were previously admitted and had some health education while 11 (22%) previously admitted had no health advice. For those not admitted before, 16 (32%) had some health education and 9 (18%) had none at all.

TABLE 13: Health education given in redation to children's presenting problems.

PRESENTING PROBLEMS	HEALTH EDUCATION GIVEN				TOTAL
	FOOD HYGIENE	CHILD HYGIENE	GIVEN MILK SOYA ETC	N/A	
Diarrhoea vomiting	04	03	06	10	24
Body swelling Hair changes	02	03	03	08	15
Others-cough Malaria etc.	01	03	05	02	11
TOTAL	07	09	14	20	50

Table 13 indicates that for the respondents who had health advice, the advice given was on giving milk and Soya bean porridge 14 (28%) followed by child hygiene 09 (18%) and food hygiene 07 (14%) and not specific to presenting problems.

TABLE 14: Nutrition demonstrations done in relation to respondents previous admission status

DEMONSTRATIONS	PREVIOUS ADMISSIONS		TOTAL
	YES	NO	
GIVEN	01	02	03
NOT GIVEN	25	22	47
TOTAL	26	24	50

Table 14 indicates that nutrition demonstrations were not given to the majority 47 (94%) of the respondents especially those that had previous admissions.

TABLE 15: Respondents, knowledge about malnutrition in relation to its signs and symptoms.

KNOWLEDGE ABOUT MALNUTRITION	SIGNS AND SYMPTOMS OF MALNUTRITION			TOTAL
	NO IDEA	S & S UNRELATED TO MALNUTRITION	S & S RELATED TO MALNUTRITION	
YES	10	01	27	38
NO	08	04	-	12
TOTAL	18	05	27	50

Table 15 indicates that most of the respondents 27 (54%) knew malnutrition as a disease and could also mention the actual signs and symptoms. 10 (20%) had heard the term malnutrition but had no idea about the signs and symptoms. 1 (2%) knew but mentioned signs and symptoms unrelated. 12 (24%) have no knowledge about malnutrition and its signs and symptoms at all.

TABLE 16: Number of Nurses in relation to patients

DAY	NUMBER OF NURSES OF DUTY		
	MORNING	AFTERNOON	NUMBER OF PATIENTS
MONDAY	3	1	64
TUESDAY	2	1	66
WEDNESDAY	2	1	65
THURSDAY	3	1	68
FRIDAY	3	1	68
SATURDAY	3	1	66
SUNDAY	2	1	67
AVARAGE NO.	3	1	66

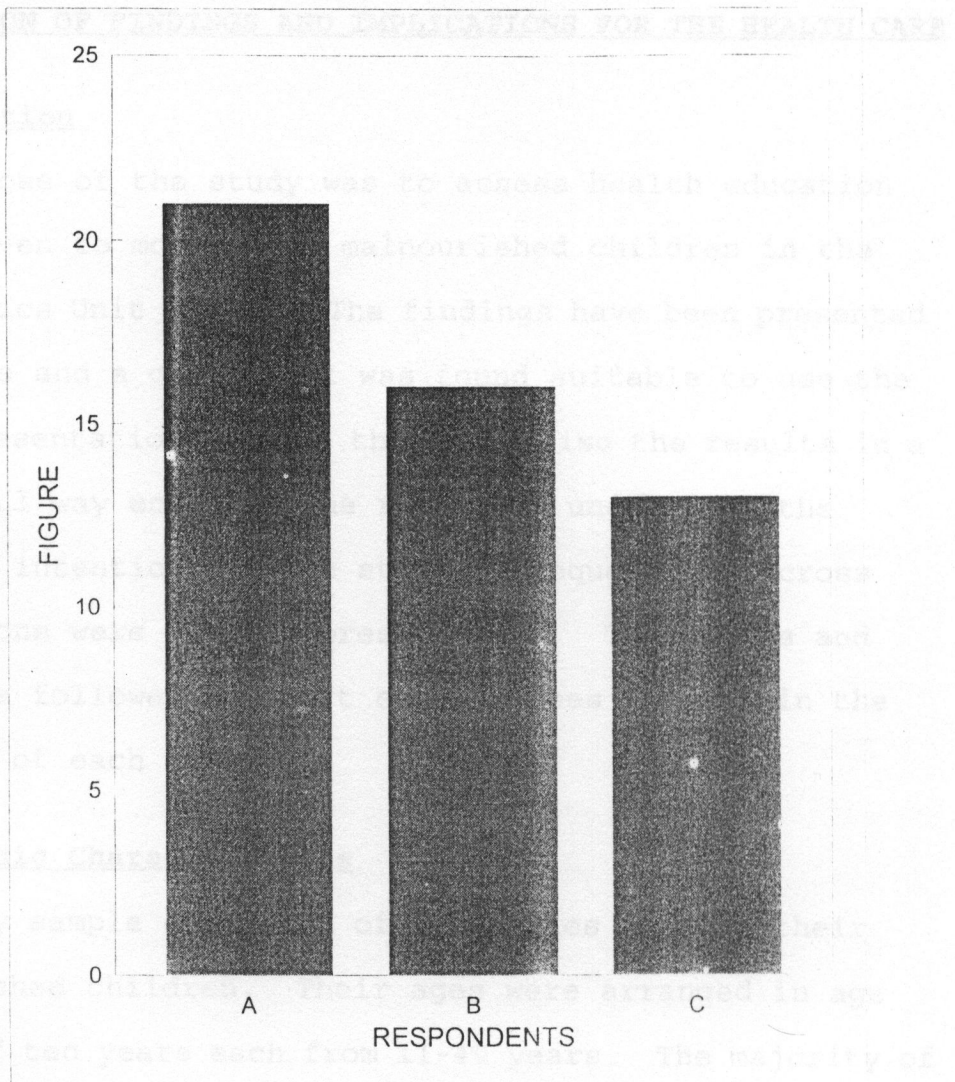
Table 16 shows that with an average number of 66 patients in the ward there was an average number of 3 nurses in the morning and i in the afternoon. This gives a ratio of 1:22 patients and 1:66 patients respectively.

TABLE 17: Health Education Providers.

PROVIDERS	FREQUENCY	PERCENTAGE
DOCTORS	09	18
NURSES	41	82
NUTRITIONISTS	0	00
TOTAL	50	100

Table 17 shows that 82% of the health education providers were nurses and 18% were doctors while nutritionists gave no health education.

FIGURE 2: Respondents' intentions if the child was to get sick again.



KEY

A = Others giving non-protein foods and home remedies

B = Give protein foods

C = Take child to clinic or hospital

Figure 2 shows that 21 (42%) respondents will give other home remedies and non-protein foods. 16 (32%) will give protein foods and 13 (26%) will take the child to a clinic or hospital if the child became sick again.

CHAPTER 5

5.0. DISCUSSION OF FINDINGS AND IMPLICATIONS FOR THE HEALTH CARE SYSTEM

5.1. Introduction

The purpose of the study was to assess health education being given to mothers of malnourished children in the Paediatrics Unit of UTH. The findings have been presented in tables and a graph. It was found suitable to use the above presentation because they summarise the results in a meaningful way enabling the reader to understand the author's intentions in the study. Frequency and cross tabulations were used to present data. The tables and graph are followed by short essay proses to explain the contents of each table.

5.2. Demographic Characteristics

The study sample comprised of 50 females nursing their malnourished children. Their ages were arranged in age groups of ten years each from 11-40 years. The majority of the respondents were less than 20 years (42%) followed by 21-30 years (32%) and 31-40 years (25%) (Table 1).

In terms of marital status, most respondents were married (54%) while the rest were single (20%), widowed (16%) and divorced (10%) (Table 2). To make matters worse, most of the respondents did not have a sound economic base as they did not have an income (76%), while those in employment either got less than K100,000 (18%) or K101,00 - 150,000 (6%) (Table 4). The unemployed were mainly in the age

group of less than 20 years (34%) and 21-30 years (28%). Self employment was the only way to survive (22%).

In terms of education, most respondents had primary education (66%), (22%) had secondary education, (10%) had no education and only (2%) had college education (Table 2). Even the additive effect of the couples' income could not benefit the family as only a minority (6%) could assist each other while the rest (74%) relied on single income or non at all (table 5).

The above characteristic weigh down on women who, most of the time are illiterate, poor and powerless to change their position in life. This is in line with Berkerly (1987) who emphasises that secondary education is vital for girls since they are the future mothers to prevent malnutrition. The illiterate or impoverished mother may fail to reserve the food supplements obtained from the hospital for the sick child and end up rationing it among other siblings at home (Cribb and Dines 1995). This can happen among our mothers since most of them had 1-3 children (74%) and 4-6 children (24%). Among these poor and illiterate mothers in addition is a special group of most vulnerable members of the society, that is, the single mothers, widows and divorcees needing both material and psychological support.

5.3. Social, Economic and Cultural Factors

Most mothers stay in high density areas (96%) which are characterised by overcrowding, inadequate water and sanitation. These according to the Z.D.H.S. (1996) are a good recipe for diarrhoea and other diseases that cause malnutrition especially when there is inability to source food (Table 4).

Breast feeding among the mothers was observed to be practised by most of them. 32% were still breast feeding, 28% weaned their children at 1 and 7 months to 2 years, 30% weaned at 1 year and 1 month to 1 year 6 months and only 9% weaned their children at an age of less than 1 year (Table 8). For those that had weaned their children, the main reasons given were; the child being old enough (36%), the child being sick (30%) and the mother working (2%) (Table 9). Emphasis on the need for this practice especially when the children were sick should have been made since most of the respondents are poor and in less than 20 years age group that requires most knowledge in child care. Knowledge being a basic ingredient of attitudes and practices, the study also probed on what the respondents would do if their children were to get sick again. Most mothers intended to give home remedies (42%) which include both modern and tradition medicine and some food that are of little value in malnutrition prevention and management. This ties up with Ebrahim (1991) who explains that socio-cultural factors are deeply ingrained in most communities. Only 32% of the respondents intended

to give protein or nutritious foods that are of value in malnutrition prevention and management. 26% intend to take the children to either the clinic or hospital if they became ill again.

After being in hospital for more than once and for period of over two weeks, one would expect some changes in the social and cultural practices or behaviour for the better. This does not seem so in this case as the number of mothers that intend to give protein foods (32%) is lower than that for giving home remedies which is 42% had specific details and frequent health talks being given.

The traditional home remedies given are related to our social and cultural beliefs that try to associate illness with supernatural phenomenon requiring appeasement of spirits or observance of certain requirements as requested by the elders and traditional healers.

5.4. Health Education and Staff Commitment

Opportunities for health education are many due to the fact that most mothers stay longer in the hospital for periods ranging from 2 - 6 weeks. This is the time period that can be utilised by making a deliberate effort to give at least one effective health talk that can help the mother to meet their health needs. Williams (1982) considers education as a beginning point and continuing part of patient care and counselling.

Despite the golden opportunities for health education through readmission, most respondents (50%) had no health education given to them, (Table 11). Those that had health education (50%) probably just chanced it as it seems that health education is given at nurses convenience and not the mothers. This scenario may ultimately leave patient without getting health education even after being in the ward for up to 6 weeks. Of the respondents who had health education, only (28%) had specific health education while the rest had non-specific health education relevant to malnutrition and its management given (Table 12).

The 'practice makes perfect' principle has not be well utilised by the health education providers as they did not help the respondents in food demonstrations (94%) (Table 13) even among those who have had readmission. Since what it seen in remembered more than what is heard, nurses and nutritionists should make deliberate steps of addressing this basic need for information and demonstrations on food preparations and preservation.

All health workers and not just nurses (82%) and doctors (18%) (Table 16) should take active roles in health education provision. Health workers can achieve giving health education easily because most of the respondents have an idea of malnutrition as a disease (54%) (Table 14) and the best foods to give to the child when sick (32%) (figure 2). For those with no idea of malnutrition, health education would be of great value since most of the mothers have primary school education is in line with the Nursing

Times (1996) which states that health counselling is important regardless of who gives it, be it the nurse or doctor, nutritionist or physiotherapist.

Although most of the mothers acknowledged the fact that they have gained enough knowledge to care for their children at home after discharge, (42%) still intended to give other home remedies and non-protein foods (figure 2) of little value in malnutrition prevention. This was because of most of the knowledge gained as attributed to observations in the ward and not formal health education.

Health education provision depends on a good nurse/patient ratio - a factor that is not addressed seriously as evidenced by the average nurse/patient ratio of 3 nurses to 66 patient in the mornings and 1 nurse to 66 in the afternoons (Table 15). There is no way which one nurse can care 66 patients, plan and give an effective health talk. If she gives any, it is most likely to be a piecemeal or chanced talk that is not specific and detailed.

5.5. Implications for the Health Care System

Health education is not being given to mothers nursing children with malnutrition, denying them the right to information and support which they so desperately need for them to get out of their doldrums.

Health and nutrition education can help ameliorate the suffering which these parents and children are going through. It can also help the mothers in finding

alternatives to their problems since malnutrition is a disease that can be managed by changing attitudes and practice that predispose children to malnutrition according to Ebrahim (1991). The cost burden on the health ministry to manage malnutrition would also be minimised greatly.

The impact of information dissemination should not be underestimated as it can provide a basis for individual and collective action needed to improve on the quality of life for children. Its absence would mean continued ill health of children with intellectual and physical growth retardation and resultant health care demands and costs on individual families and the nation as a whole (AHTAG 1997).

Though the underlying causes are many, just as the solutions are, mothers need to be empowered through health education about the problem, its consequences, local causes, what can be done about it and where obtain the necessary resources to do it.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The study has revealed a lot of details about the characteristics of the respondents, who normally come with malnourished children to the Paediatric Unit. The mothers have been found to be poor, illiterate, single parents, widows and divorcees living in shanty compounds and married to poor men. The main reason for malnutrition among these families was found to be inability to provide for the child's nutritional needs. This ties up with the explanation given by the Z.D.H.S. (1996) that most Zambians are poor.

Health education, which is meant to give our mothers insight into how they can maximise their potential, has not been adequately. As a result, some attitudes and practices detrimental to one's health have not been corrected even among those mothers who have been in the hospital before.

The study displays that the problems of malnutrition is a national issue which needs serious attention. Health workers need to provide vigorous education aimed at eradicating malnutrition (Nursing Times 1996).

6.2. Recommendations

1. Key health and nutrition education providers should plan and agree on content of materials to be used in malnutrition management with the involvement of mothers in line with local causes.
2. Allocate time and resources for regular and formal discussion with mothers using participatory research/rapid appraisals.
3. Nutrition demonstrations should be started to complement health education. A vegetable garden near ward A07 for demonstrations would be of value.
4. Provide pictures and literature in common languages in the ward so that mothers can get some information from them.
5. Improve on the staffing situation to facilitate health education sessions.
6. There is need for a large scale study involving more respondents and hospitals to allow for generalisation of findings.

6.3. Limitations

Health education is a necessity to all patients. This study probed the extent of health education being given to mothers of malnourished children in the paediatrics unit. Unfortunately, only 50 mothers were interviewed. This was due to both time and financial resources inadequacy. Had

these been adequate enough, a wider research that was going to shed more light on the identified problem would have been done

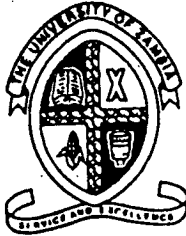
Annex 1

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Your Ref:

Our Ref:

8th July, 1998

The Managing Director
UTH Board of Management
P.O. BOX RW 1X
LUSAKA.

Dear Sir/Madam,

This is to introduce..... AGNES S. FUNDULU....., a Fourth Year BSC (Nursing) Student in the Department of Post Basic Nursing, School of Medicine, University of Zambia. The student is undertaking a Research Study in partial fulfilment of the above mentioned degree.

The Research Programm for study is... ASSESSMENT OF HEALTH EDUCATION BEING GIVEN TO MOTHERS OF MALNOURISHED CHILDREN IN PAEDIATRICS HOSPITAL, UTH, LUSAKA.

We shall be most grateful if you could access the student to information on the subject or clients and any other assistance the student may require.

Yours faithfully

Lydia Jumbe
COURSE CO-ORDINATOR
DEPARTMENT OF POST BASIC NURSING



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Ref:
16th July, 1998

The Course Co-ordinator
Department of Post Basic Nursing
School of Medicine
LUSAKA.

Dear Madam,

Re:- AGNES S. FUNDULU, FOURTH YEAR BSC (NURSING) STUDENT

I acknowledge with thanks receipt of a letter about the above mentioned student seeking permission to carryout a research.

I am pleased to advise that authority has been granted.

Yours faithfully,

M.M. Mbewe (Mrs)
DIRECTOR OF NURSING

MMM/vhm.

STRUCTURED INTERVIEWS SCHEDULE
TO ASSESS HEALTH EDUCATION BEING
GIVEN TO MOTHERS OF MALNOURISHED
CHILDREN IN THE PAEDIATRICS
UNIT, U.T.H.

DATE.....

INSTRUCTIONS.

1. Introduce yourself to the client and explain the purpose of your interview.
2. Assure the client that all information is confidential.
3. Please tick the right answer and write the comments in the spaces provided.
4. Thank the respondent at the end of the interview.

QUESTIONNAIRE

RESP NO. _____

DEMOGRAPHIC CHARACTERISTIC

FOR OFFICIAL USE ONLY

- | | | | |
|----|-----------------------------------|--------------------------|--------------------------|
| 1. | How old are you? | | |
| | a. 15-20 years | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. 21-30 years | <input type="checkbox"/> | |
| | c. 31-40 years | <input type="checkbox"/> | |
| | d. 41 and above | <input type="checkbox"/> | |
| 2. | Where do you stay? | | |
| | a. High density area | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Low density area | <input type="checkbox"/> | |
| 3. | What is your educational level? | | |
| | a. No school | <input type="checkbox"/> | |
| | b. Primary | <input type="checkbox"/> | <input type="checkbox"/> |
| | c. Secondary | <input type="checkbox"/> | |
| | d. College/University | <input type="checkbox"/> | |
| 4. | What is your marital status? | | |
| | a. single | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. married | <input type="checkbox"/> | |
| | c. divorced | <input type="checkbox"/> | |
| | d. widowed | <input type="checkbox"/> | |
| | e. Other/Specify | <input type="checkbox"/> | |
| 5. | What is your occupational status? | | |
| | a. Employed | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Unemployed/House wife | <input type="checkbox"/> | |
| | c. Self employed | <input type="checkbox"/> | |

Williams and Baumslag (1994) states that all the problems of maternal and child health can be improved in some degree by health education, that is, by motivating and persuading people to make vital but quite often minor modifications in their lives. The process of changing people's behaviour through health education they further say, requires awakening or enhancing an awareness that a problem exists, creating an interest and desire for more information, convincing people that there is a practical solution and helping people to make the needed change a behaviour.

6. If married, what is your husband's occupational status?

a. Employed

b. Unemployed

c. Self employed

7. What is your monthly income?

a. Less than K100,000/month

b. K110,000 - K160,000

c. Above K150,000

d. Not applicable.

8. What is your husband's monthly income?

a. Less than K100,000/month

b. K100,000 - K150,000

c. Above K150,000

d. Not applicable.

9. How many children have you?

a. 1-3

b. 4-6

c. 7 and above.

SOCIO-CULTURAL FACTORS

10. What do you usually do when your children become sick?

a. Go to the clinic/hospital

b. Seek help from elders

c. Seek witch doctor's advice

d. Others/specify

11. Do you breastfeed your child?
a. Yes
b. No

12. If no to No.12 Why?
a. Working
b. The child was sick
c. Others/specify
d. Not applicable.

13. How old was the child when it stopped breast feeding?
a. 0-6 months
b. 7 months - 1 year
c. 1year 1 months - 1 1/2
d. 1year 8 months and above.

14. For how long has your child been admitted?
a. 0 - 1 Week
b. 1 - 2 Weeks
c. 3 Weeks and above.

HEALTH EDUCATION/STAFF COMMITMENT

15. What is your child suffering from now?
a. Diarrhoea/vomiting
b. Body swelling
c. I don't know
d. Others/specify

16. Was the child admitted in hospital before?
a. Yes
b. No

17. If Yes what was the problem in the first admission?

a. Diarrhoea/vomiting

b. Body swelling

c. I don't know

d. Other/specify

18. Have you been informed about your child's main problem"

a. Yes

b. No

19. If Yes, what were you told?

20. have you received any health advice regarding your child's care?

a. Yes

b. No

21. How many times per week did you have health education talks?

a: Once

b. Two times

c. Three times and above.

22. Did you have some demonstrations on how to prepare necessary food for a growing child?

a. Yes

b. NO

23. How many times per week did you have demonstrations?

a. Once

b. Two times

c. Three times and above

24. Who gave the health talks and demonstrations?

a. Nurses

b. Nutritionists

c. Doctors

d. All were involved

25. Was the time for lessons convenient for you always?

a. Yes

b. No

26. Are the foods demonstrated similar to those available at your home?

a. Yes

b. No

27. Did you understand what was taught in all the health talks?

a. Yes

b. No

28. If No, explain why not.

29. After being in hospital, do you feel you have gained enough knowledge to manage your child's problem at home?

a. Yes

b. No

30. What foods are important for a child to grow well?

a. Meat, fish, eggs, milk

b. Bread, fanta, tea

c. Other/specify

31. What will you do if your child developed malnutrition?

a. Take it to the clinic/hospital

b. Give it milk, eggs, fish, meat etc.

c. others/specify

32. What are the signs and symptoms of malnutrition?

a. I don't know

b. Not gaining weight, body swelling, skin sores, diarrhoea, paleness, frequent pale stools etc.

c. Others/specify

33. What will you do if your child developed diarrhoea?

a. Take it to the clinic/hospital

b. Give it O.R.S

c. Others/specify

