

Assessment of Knowledge, Attitude and Practice of Mothers with Severe Acute Malnutrition Children Regarding Child Feeding

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ABSTRACT

Background: Mother is the principle provider of the primary care that her child needs during the first five years of life. The type of care she provides depends to a larger extent on her knowledge and understanding of some aspects of base nutrition and health care. So if mothers are made more aware about feeding practices of infant and other health care practices then, it will go long way to improve the status of severity of malnutrition. Objective: To assess knowledge, attitude and practice of mothers with Severe Acute Malnutrition children regarding child feeding. Materials and method: Study design: Descriptive study, Study period: six months, Study population: 120, Inclusion criteria: Mothers having Children of age group infants to pre-school child (0-5years), admitted with Severe Acute Malnutrition with or without co-morbidities in Nutritional Rehabilitation Centre. Place of the study: Nutrition Rehabilitation Centre (NRC), Department of Paediatrics, SVRR Government General Hospital (S.V.R.R.G.G.H), Tirupati. Methodology: Assessment of knowledge, attitude and practice of mothers was done by using a questionnaire containing 53 questions. Outcomes measured: knowledge, attitude and practice of mothers regarding child feeding. Results: The present study revealed that out of 120 mothers 69 (57.5%) have adequate knowledge followed by 36 (30%) have moderately adequate, 15 (12.5%) have inadequate knowledge. But in practice only 40 (33.33%) mothers showed adequate feeding practices, remaining 62 (51.66%) showed moderately adequate practices, 18 (15%) have showed inadequate feeding practices. On an average, out of 120 mothers 43 (35.83%) shows favourable attitude, 35 (29.16%) shows moderately favourable, 42 (35%) shows negative attitude towards the child feeding. Conclusion: The study has shown there are some gaps in terms of knowledge and practice of mothers. Awareness of mothers regarding child nutrition exists but it can be further improved to make their knowledge into practice. This study emphasizes the need to improve knowledge and confidence of mothers through appropriate counselling and support by the clinical pharmacist in association with other health care professionals with the ultimate goal of preventing malnutrition.

Keywords: malnutrition, knowledge, mothers, practice

INTRODUCTION

The World Health Organisation (WHO) describes nutrition as “the intake of food, considered in relation to the body’s dietary needs” and good nutrition is a key determinant of health. When food intake is not in balance with the body’s dietary needs, malnutrition occurs. The term malnutrition encompass both under nutrition and over nutrition (obesity)^{1,2}. It most often refers to under nutrition resulting from improper feeding practices, impaired utilization of nutrients due to infections and parasites, inadequate food and health security, poor environmental conditions and lack of proper child care practices³. Malnutrition is one of the leading causes of morbidity and mortality in children throughout the world. Severe acute malnutrition (SAM) among children below five years of age remains a major embarrassment, and impediment to optimal human capital development in India. India is home to greatest population of severely malnourished children in the world and accounts for over 20% of underweight deaths and 2.1 million children do not survive up to five years of age. In India, 6.4% of children under the age of five years are

suffering from SAM^{4,5}. A mother is the principle provider of the primary care that her child needs during the first five years of life. The type of care she provides depends to a larger extent on her knowledge and understanding of some aspects of base nutrition and health care. It is understandable that her educational status has been reprotected to influence her child care practice. So if mothers are made more aware about feeding practices of infant and other health care practices then, it will go long way to improve the status of severity of malnutrition⁶. So this study has taken upto evaluate knowledge, attitude and practices of mother regarding child feeding.

METHODOLOGY

Study design: A Hospital based descriptive study

Study period: Over a period of 6 months from December 2016 to May 2017.

Study population: 120 patients

Place of the study: Nutrition Rehabilitation Centre (NRC), Department of Paediatrics, Sri Venkateswara Ramnarain Ruia Government General Hospital (S.V.R.R.G.G.H),

Tirupati. Nutrition Rehabilitation Centre, Department of Paediatrics, S.V.R.R.G.G.H

Inclusion criteria: Children of age group infants to pre-school child (0-5years), admitted with Severe Acute Malnutrition with or without co-morbidities in Nutritional Rehabilitation Centre.

Exclusion Criteria

Children with Mild to Moderate acute malnutrition.

Mothers who are not willing to participate in the study.

Out patients.

Data collection

Specially designed Proforma was prepared to collect data which includes:

Patient Demographics,

Past History

Antenatal History

Birth History

Post Natal History

Feeding/ Diet History

Immunisation History

Developmental History

Personal history

family history

General and Systemic Examination, Anthropometric details etc.

Mother Demographics: Socioeconomic History, age, education level, marital status and religion of mother etc.

Questionnaire includes 53 questions to determine knowledge, attitude and practice of mothers regarding child feeding.

Method of study

The data was obtained by mother interview and from patient case profiles.

Assessment of knowledge, attitude and practice of mothers was done by using a Questionnaire.

Counselling was provided to the mothers about the importance of child diet at the Time of discharge.

Study procedure

Screening of children was done in inpatient department daily during the study period.

Anthropometric indices of the children were determined after taking the appropriate measurements.

The mothers of children who were found to be malnourished (visible wasting, bilateral oedema, MUAC less than 12.5cm, WHZ less than 2 SD) were enrolled in to the study.

Consenting mothers were interviewed using specially designed questionnaires.

Data Gathering Procedure: A semi-structured interview guide was used to collect in-depth information from each participant. These interviews were conducted personally. Each participant's demographic data was collected along with the interview data.

Participants were encouraged to express themselves freely on all questions raised.

Each interview session with a participant lasted between 45 to 60 minutes, while the data gathering was conducted within a period of 6 months.

RESULTS

A total of 120 patients admitted in nutrition rehabilitation centre of a tertiary care teaching hospital with the diagnosis of SAM for a period of 6months. In our study out of 120 patients, 59 (49.16%) were infants, 42 (35%) were toddlers, followed by 19 (15.8%) were children below 5yrs of age. Out of 120 study population females constituted the major portion i.e., 67 (56%), followed by males 53 (56%).

DISCUSSION

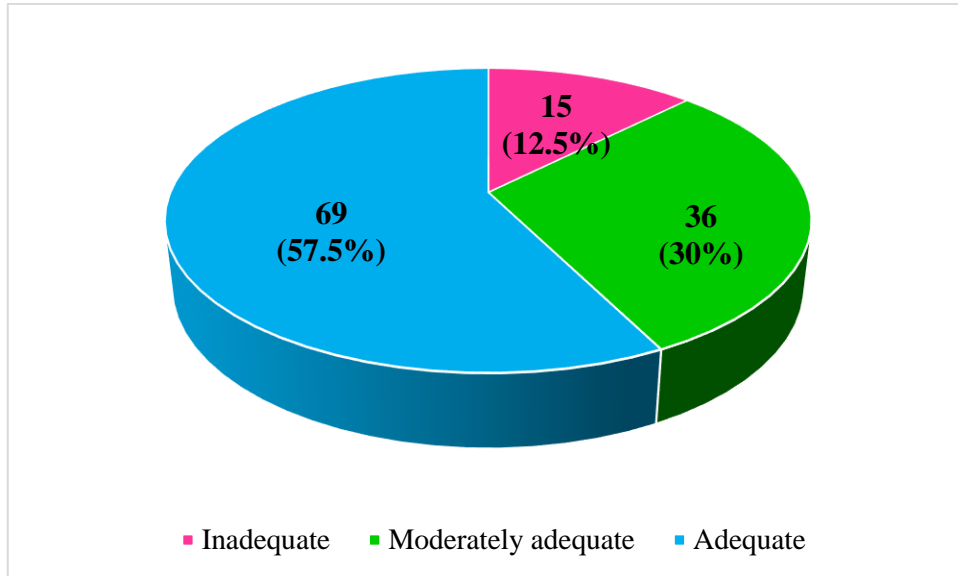
Our study included the children belonging to age group of 1month to 5 years. The mean age of study population was found to be 19.4 months (SD \pm 15) which is similar to the findings made by Sharma et.al,⁷ in their study reported that prevalence of malnutrition is high in children less than 24 months. Similarly Mamidi et.al,⁸ in their study reported that 71.1% of children were below 24 months.

Prevalence of malnutrition was high in infants followed by toddlers and children. This is due to in initial 1-3 years of life rapid growth occurs and requirement of nutrients for building of tissue also increases. Thus, deficiency of protein, energy and other micronutrients in these years results in malnutrition.

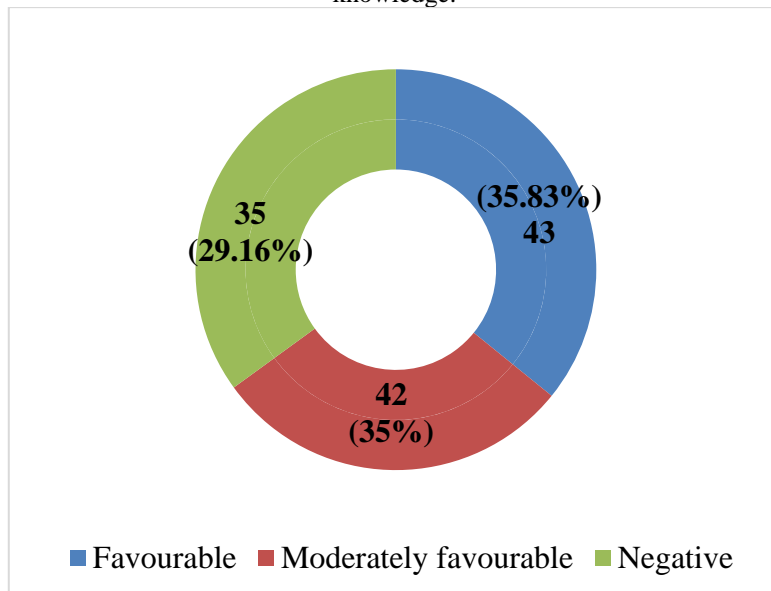
In our study, female patients were affected more when compared to males. This finding was in acceptance with the study performed by Joshi et.al,⁹ who reported more prevalence of malnutrition among females (78%) than males (22%). This scenario was may be due to variation of parenteral attention towards one gender¹⁰.

Our study was on maternal knowledge on nutritional status of children aged one month to five years. Out of 120 mothers only 50 (41.67%) knows that adequate nutrition is essential for normal child's growth and development. They are also aware that food insecurity both quantitatively and qualitatively leads to malnourishment in their children. Rest of mothers 70 (58.33%) do not know what is malnutrition. Even some of the mothers have superstition belief that malnutrition was caused by witchcraft and evil eye. Some of the mothers were not aware of their children daily nutritional requirements and symptoms of under nutrition. This may be the cause of delayed diagnosis of malnutrition in children which may increase its severity. In our study, more than three fourth of total mothers knows the importance of colostrum and remaining one fourth don't know what is colostrum and its importance to their children which may be the reason for prelacteal feeding. But in practice 70% of children receive colostrum as their first feed and 30% were received with prelacteal feeds. The breast feeding to the new born baby should be initiated as early as possible after the birth. Delayed initiation of breast feeding may decrease the production of breast milk and increase the risk of infections due to prelacteal feeding. Exclusive breast feeding should be continued up to six months unless there are no other maternal factors exist. Complementary feeding should be started after six months. Breast feeding along with complementary feeding should be continued up to 24 months.

Present study shows that 60% of mothers know that breast



Knowledge: Our study results were suggestive of out of 120 study populations 69 (57.5%) has adequate knowledge regarding child nutrition. Remaining 36 (30%) have moderately adequate knowledge, 15 (12.5%) have inadequate knowledge.



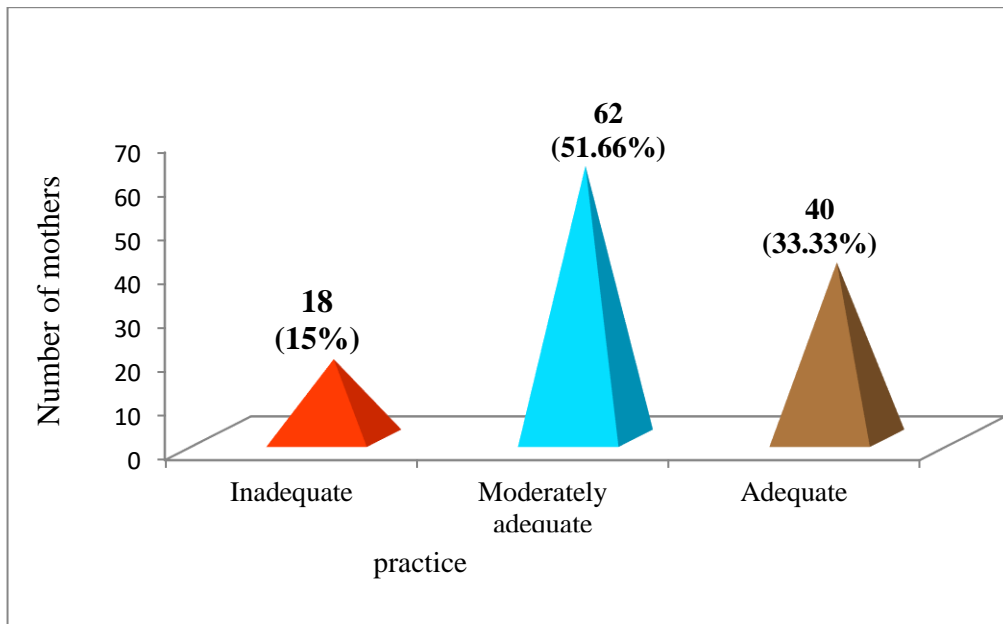
Attitude: The assessment of attitude was done based on three point likert's scale. Each question was given with score. Based on the score the results were suggestive of the mothers have favourable attitude towards the statements breast milk protect the child from illness and colostrum is nutritious to the baby. Negative attitude was observed towards the statement regarding exclusive breast feeding for 6months, child digestion of heavy foods. Moderate attitude was observed towards pre-lacteal feeding, nutritious food are expensive, child feeding during pregnancy.

feeding should be initiated as early as possible after birth. But in practice only 52% of mothers gave breast milk to their child within half an hour. In remaining mothers delayed breast feeding was noted. Some children were fed after one hour, some after one day. Out of 120 mothers 89% were agreed that children should be breast feed for six months exclusively. But in practice only 65% of children were exclusively breast fed up to six months. In remaining children, complementary feeds were started before six months due to several reasons like mother don't have enough milk, baby not accepting the breast milk, illness and others. Only 30% of mothers agreed that breast feeding

should be continued up to 24 months, remaining mothers thought that breast feeding should be continued up to 5 – 18 months.

Frequency of feeding child per day preferably depends on child demand except in some situations like baby not accepting, illness and others. In our study, 13.3% children were fed more than 8 times per day. Remaining 37.5% were fed 6 to 8 times, 40% were fed 4 to 6 times, only 9.16% were fed on demand.

The addition of fruits and vegetables to child feed provides the plenty of micronutrients which helps to prevent the malnutrition. In our study 89% of mothers know that



Practice: Out of 120 study population, only 40 (33.33%) of mothers showed adequate practice regarding child feeding. Remaining 62 (51.66%) showed moderately adequate practice, 18 (15%) showed inadequate practice.

addition of fruits and vegetables was beneficial to the child. But in practice, only 32% of children were fed with fruits and vegetables in their diet. This is also one of the reasons for malnutrition.

The major reason for occurrence of malnutrition was infections. So, maintenance of proper sanitary conditions plays a major role in prevention of malnutrition. In our study 90% of mothers agreed that it is necessary to wash hands before feeding their child and the child should be kept away from the sick people. But in practice only 60% of mothers wash their hands before feeding their children, only 6.6% of mothers wash their hands after sneezing or coughing, only 29.16% of mothers clean their breast before and after feeding their child. More than three fourth of 120 mothers cut their child nails regularly and bath daily, 88% washed their hands after using the toilet or after changing the diaper.

Always boil drinking water to prevent the water born infections. In the present study 22.5% of mothers used boiled drinking water for their child. So, water contamination was also being considered as one of the reasons for infections in the study population. Some of the parasitic infections were caused due to mosquito bites so the child must be protected against mosquito bites. The best way protect from mosquitoes was using mosquito nets. The usage of coils may cause some respiratory disturbances and ingestion of insect repellent creams may leads to poisoning. Present study shows that 28% of mothers use mosquito nets, 41% use coils, 27% use none, 2.5% use insect repellent creams.

Using of public and open toilets was the key for infections. In our study 96% of others were belonged to rural areas using open and public toilets. In the present study 91% of mothers keep the water and cooked food with lids, 58% of the families were living in areas where there are no proper sanitary conditions, waste disposal and presence of stagnant water in their surroundings. These all poor

sanitary conditions may be the predisposing factors for malnutrition in study population. Proper vaccination according to immunization schedule helps the child to fight against the infections. Out 120 mothers, only 88% of mothers were aware of vaccination schedule. But in practice, only 53% of children were completely immunized. Government provides anganwadi diet to every child which helps the child to catch up their nutritional requirements. But only 76% of mothers were aware of anganwadi diet.

Increase in child spacing also decreases the risk of malnutrition and It helps to provide more resources to their child. Out of 120 mothers 61% of mothers follow child spacing of 2 – 4 years.

On assessment of attitude, two statements “colostrum is very nutritious to the baby” and “breast milk protects your child from illness” were scored as follows: agree – 3, undecided – 2, disagree – 1. The rest of the statements were reverse scored i.e. agree – 1, undecided – 2, disagree – 3. The scores of each statement were calculated.

The highest score was observed on the statements “breast milk protects the child from illness” and “colostrum is nutritious to the baby”. Least scores were observed for the statement “it is possible for the baby to survive on breast feeding for six months”, “some foods were heavy for child to digest”, “nutritious foods are expensive”. Hence from the results, it was revealed that there exists favourable attitude among the mothers towards colostrum and breast milk. Moderate attitude was present towards prelacteal feeding, nutritious foods are expensive, child feeding during pregnancy. Negative attitude was found towards exclusive breast feeding for six months, child digestion of heavy foods. Inappropriate beliefs and attitudes towards certain foods lead to inadequate and unbalanced diet predisposing the child to under nutrition.

On an average, out of 120 mothers 43 (35.83%) shows favourable attitude, followed by 35 (29.16%) shows

moderately favourable attitude, 42 (35%) shows negative attitude towards the child feeding statements.

Limitations

Since, the study was done in one hospital with a limited sample size; generalization of the findings is limited. Also, the study relied on answers given by the mother hence, the findings are subjected to recall bias.

CONCLUSION

The study has shown there are some gaps in terms of knowledge and practices of mothers regarding child nutrition. Awareness of mothers regarding child nutrition exists but it can be further improved to make their knowledge into practice with basic health education to and proper counselling by the health care professionals. Even though the government has been implementing several programmes for minimizing the malnutrition, but still in the rural areas that programmes were not reached to the rural populations. So, the government has to play the role of sensitizing the public on the need for balanced diet. Moreover, if the mothers play very well their roles of breast feeding at the appropriate time as well as preparing balanced diet from available food stuffs, malnutrition will greatly be reduced. This study emphasizes the need to improve knowledge and confidence of mothers through appropriate counselling and support by the clinical pharmacist in association with other health care professionals with the ultimate goal of preventing malnutrition.

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