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COMPLIANCE AMONG CHILDREN ADMITTED IN MALNUTRITION TREATMENT CENTRE – FOLLOW UP STUDY AT RANCHI DISTRICT, JHARKHAND

Community Medicine

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ABSTRACT

Malnutrition Treatment Centre (MTC) with the intention to improve the quality of care for Severe Acute Malnutrition (SAM) children and to reduce child mortality.

Aim- To assess the sustained weight gain in children during follow up.

METHODOLOGY- Descriptive Prospective Study done in MTC of Mandar, Community Health Centre (CHC) and State Dispensary Doranda (SDD) of Ranchi district of Jharkhand.

RESULT-Out of 145 cases final result was obtained from 120 admitted SAM children. Most of children up to age group 13-18 months 43(35.8%) followed by 25-60 months 33(27.5%). Mean age of the children was about 18.82 ± 11.339 months. 74 (61.66%) were female and male were 46 (38.33%) belonging to13 – 18 months of age group (34.16%). 15.83% children attain all four follow up and 55.83% did not attain any follow up.

CONCLUSION- Study had pointed out the weakness at follow up visits.

KEYWORDS

Malnutrition, Severe Acute Malnutrition

INTRDUCTION:

Malnutrition is a preventable condition and more than half of malnutrition deaths among children could be prevented if children were well nourished. India is home to 40 percent of the world 'malnourished children and 35 percent of the developing world low-birth-weight infants; every year 2.5 million children die in India, accounting for one in five deaths in the world.[1] The proportion of underweight among children <5 years in Jharkhand is 57.1% which is alarmingly high.[2] Therefore, under National Health Mission, Nutrition Rehabilitation Centre (**MALNUTRITION TREATMENT CENTRE)** has been set up with the intention to improve the quality of care being provided to children with Severe Acute Malnutrition (SAM) and to reduce child mortality. The success of this program depends largely on adherence to follow-up and sustained nutritional improvement after discharge from the health facility. We don't have any data about maintenance of improved health after discharge from MTC. The present work aims to try to the compliance among beneficiaries in four follow-up visits also evaluate the effect of the nutritional interventional measures during follow up of the treated children after discharge in the community.

AIMS AND OBJECTIVE:

1. To assess the proportion of compliance among beneficiaries in four follow-up visits.

MATERIALS AND METHODS:

This was a Descriptive Prospective Study done in Malnutrition Treatment Centre of Mandar, Community Health Centre (CHC) and State Dispensary Doranda (SDD) of Ranchi district of Jharkhand. Total period of study was 28 months (July 2014 to September 2016). There are four MTC centers in Ranchi district which are situated in CHC Mandar, Bundu (CHC), CHC Bero and State Dispensary Doranda (SDD) among which MTC,of Doranda and Mandar in Ranchi district were selected by simple random method (using cards for random selection).. Keeping the reaserch question in mind a semistructured interview schedule was developed. Anthropometric measurement was carried out at the time of admission, discharge and during the period of follow up. After discharge, four Follow-up visits were conducted at every 15 days. Admission criteria were - WFH > -3 SD / MUAC >11.5 cm with or without pedal oedema. Discharge criteria for all infants and children was 15 % weight gain and no signs of illness. Socio-demographic data of all children was included. Mothers of the children were interviewed on breast feeding, food habits and hygiene practices of SAM children at the MTCs by using a predesigned and pretested interview schedule. Anthropometric parameters: MUAC = mid-upper arm circumference; SD = standard deviation, WFH = weight for height. Anthropometric tools: Digital weight machine for weight measurement and Shakir tape was used for mid arm circumference measurement. Exclusion criteria: All defaulters who discontinue his/her treatment due to any reason (LAMA/Referred to higher center). The data was entered into Microsoft excel spreadsheet. Data entered was then imported into SPSS version 20 and descriptive analysis was done. Frequency table of Socio-demographic profile, anthropometric measurement, information regarding breast feeding, food habits and hygiene practices of SAM children entered in the study. In Statistical test Mean and Standard deviation were used. Ethical approval was obtained from the Institutional Ethics Committee of Rajendra Institute of Medical Science (RIMS), Ranchi. The participants were instructed to have right to refuse to answer any questions without further explanation. Their answers were handled confidentially. All forms were coded with numbers. The patient did not receive any compensation for participating in the study. The patient's medical treatment was not affected, regardless of whether the patient chose to take part in the study or not. Informed consent was obtained from the parents of all admitted children

RESULT

145 cases of SAM child were enrolled in this study of which the final result was obtained from 120 admitted SAM children in MTC of Ranchi District rest of 25 children were excluded according to exclusion criteria.

Socio demographic profile of family of the admitted children

Most of children up to age group 13-18 months 43(35.8%) followed by 25-60 months 33(27.5%). Mean age of the children was about 18.82 ± 11.339 months. 74 (61.66%) were female and male were 46 (38.33%) belonging to13 – 18 months of age group (34.16%). We found that 73.3% were tribal and 26.70 % children were non-tribal. Most of parents of children were educated up to 6th to 10th standard. We found that 80.8% (97) mothers of children were house wives followed by skilled labour 12 (10%). 60% (72) coming from joint family, 38.3% (46) from nuclear family and 1.7% (2) were from broken family. 5% (6) class II, 14.2% (17) class III, 35% (42) class IV and 45.8% (55) of children belong to class V according revised Prasad's classification (2016).[3]

61.7% (74) had WFH and 38.3% (46) had WFH+MUAC was Criteria of admission. 82.5% (99) and 17.5% (21) children for 14-28days for 7-13 days respectively stay in MTC$_s$ to achieve target weight. 33.3% (40), 25.8% (31), 20.8% (25), 11.7% (14) children attain first, second, third and fourth follow up respectively. Out of 120 children 55.83%

(67) did not attain any follow up. Only 19 (15.83%) children attain all (4) follow up.

DISCUSION

In my study15.83% children attain all four follow up and 55.83% did not attain any follow up. Follow up rate decline over 33.3% in first follow up 25.8% second follow up, 20.8% third follow up and 11.7% four follow up. Gupta PK et al also found very poor follow-up rate 51.5%, 30.3%, 23.2%, and 18.2% over the four follow-up visits.[4] Taneja et al findings reveal increasing drop outs rates with each successive follow-up.[5] Accompanying person get150 Rs after 4th follow up visit as a travelling reimbursement (earlier 150 Rs for each follow up). These factors can adversely affect the compliance of mothers at the centers.

CONCLUSION

However, evaluation had pointed out the weakness at follow up visits. Due to low compensation of travelling reimbursement, low compliance during follow-up visits limits the overall success rate of the programme. So it is needed to improve the compliance rates for follow-up visits. The study showed that grass root level link workers like Anganwadi Worker (AWW) were responsible for most of the referral; hence it clearly emphasizes the need to mobilize and motivate these staff for better delivery of services and information.

LIMITATION

The study was conducted in a limited group of subjects and was restricted to a single district of the state. Studies with bigger sample size selected from MTC_s across the state of Jharkhand will give a more composite view of the actual effect of the MTC_s.

TABLE- 1 Socio Demographic Profile Of Children

Age of the children (N=120)			
Age(months)	**No of children**	**Mean age of the children**	**Std. Deviation of age of the children**
Up to 6	6 (5%)	18.82 months	11.339 months
7-12	25 (20.8%)		
13 – 18	43 (35.8%)		
19 -24	13 (10.8%)		
25 – 60	33 (27.5%)		
TOTAL	120 (100%)		
Gender of the children (N=120)			
	Sex		
Age(months)	**Male**	**Female**	**Total**
Up to 6	4 (3.33%)	2 (1.66%)	6 (5%)
7-12	10 (8.33%)	16 (13.33%)	26 (21.66%)
13-18	16(13.33%)	25 (20.83%)	41 (34.16%)
19-24	6 (5%)	9 (7.5%)	15 (12.5%)
25-60	10 (8.33%)	22 (18.33%)	32 (26.66%)
Total	46 38.33%)	74 61.66%)	120 (100%)
Ethnicity of the children (N=120)			
Ethnicity		**No of children (%)**	
Tribal		88 (73.3%)	
Non- tribal		32 (26.7%)	
Total		120 (100%)	

Type of family of children (N=120)	
Type of family	**No of children (%)**
Nuclear	46 (38.3%)
Joint	72 (60%)
Broken	2 (1.7%)
Total	120 (100%)

Socioeconomic status of children (N=120)	
Socioeconomic status*	**No. of children (%)**
I	0 (0%)
II	6 (5%)
III	17(14.2%)
IV	42(35%)
V	55(45.8%)
Total	120 (100%)

* according revised Prasad's classification (2016).

TABLE 2 - Follow-up After Discharge From MTC (15 day interval)

No. of follow up	No. of children attain
first follow up (n=120)	40 (33.3%)
second follow up (n=120)	31 (25.8%)
Third follow up (n=120)	25 (20.8%)
fourth follow up (n=120)	14 (11.7%)

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