Situation Assessment of Child Malnutrition Treatment Centers in 4 Blocks in Surendrangar District of Gujarat

By

Harshita Jain

Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management

Academic year, 2016-2018

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER IT MAY CONCERN

This to certify that **Dr. Harshita Jain** student of MBA Hospital and Health Management from the IIHMR University, Jaipur has undergone internship training at **National Health Mission, Gujarat** from **5th Feburary to 6th May,2018**.

The candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

I wish her all success in all her future endeavors.

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Dean, Academics and Student Affairs
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NO. DHS/DPMU/CERTI/Harshita Jain /05/2018 Date:-10-5-2018

TO WHOMSOEVER IT MAY CONCERN

This is to certificate is awarded to

Dr.Harshita Jain

in recognition of having successfully completed her internship in the department of

Health and Family Welfare

and has successfully completed her Project on

Title of the project-Situation Analysis of Child Malnutrition Treatment centers in Surendranagar district of Gujarat

Duration of study-5th February to 6th May2018

She comes across as a committed, sincere and diligent person who has a strong drive and zeal for learning.

We wish her all the best for future endeavors.

6/10/18

ChiefDistrictHealth Officer
District Panchayat
Surendranagar

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Situation Assessment of Child malnutrition treatment centers in 4 blocks in Surendranagar district of Gujarat** submitted by Dr. Harshita Jain Enrolment No- **IIHMR-U/01/2016-18/0417** under the supervision of Dr.Anoop Khanna , Professor, The IIHMR University, Jaipur for award of MBA in Hospital and Healthcare Management of the University carried out during the period from February 5, 2018 to May 6, 2018 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature

ACKNOWLEDGEMENT:-

"The chance of doing my thesis Report with National Health Mission, Gujarat was an extraordinary possibility for learning and expert advancement. Along these lines, I view myself as an exceptionally fortunate individual as I was furnished with a chance to be a part of it. I am likewise thankful for having an opportunity to meet such huge numbers of magnificent individuals and experts who drove me however this Dissertation period."

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I perceive this opportunityas a big milestone in my career development. Without their active cooperation and participation it would not have been possible to accomplish my task.

My sincere gratitude to my respected mentor Dr. Anoop Khanna for his constant support and encouragement throughout my academic period and dissertation. Without his guidance, this work would not have materialized.

Sincerely

Dr. Harshita Jain

MBA HM-21

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ACRONYMS/ABBREVIATIONS: -

List of Abbreviations

ANM	Auxiliary Nurse Midwife
BF	breastfeeding
CF	Complementary feeding
CHC	Community Health Centre
CMAM	Community based management of malnourished
CMTC	Child Malnutrition Treatment Centers
DHM	District Health Mission
DHS	District Health Society
DPC	District Programme Coordinator
EC	Executive Committee
FW	Family Welfare
IEC	Information Education Communication
IMR	Infant Mortality Rate
MMR	Maternal Mortality Ratio
MD	Mission Director
NHM	National Health Mission
PHC	Primary Health Centre
RCH	Reproductive and Child Health
SAM	Severe acute malnourished
SPMU	State Programme Management Unit
SRS	Sample Registration System
TFR	Total Fertility Rate

1. Abstract

Title: Situation Assessmen of Child malnutrition treatment centers in Surendranagar district of Gujarat

Name of Author: Dr. Harshita Jain

Background:

Different stages in the life cycle are interdependent and so are the aspects of where and how healthcare is provided. The district Surendranagar in Gujarat has 8 functional Child Malnutrition Treatment Centers (CMTCs). But the performance of these facilities is far below mark in treating severe acute malnourished (SAM) children as compared to other districts. Referrals made from Anganwadi centers (AWC) and other facilities are low. In particular, utilization of Child Malnutrition treatment Centers (CMTCs) in district Surendranagar, Gujarat is found to be low as compared to the performance of other districts.

Research question: Why is the facility services utilization rate low in the CMTC centers in Surendranagar district of Gujarat?

Objectives:

- To assess the availability of services at CMTCs in Surendranagar District in terms of infrastructure, human resources and equipment according to the Operational Guidelines.
- To study the output indicators to assess CMTCs performance in improving the nutritional status of admitted children.
- To assess the functioning of CMTC treatment centres at 4 blocks.
- To identify gaps and key interventions to fill up the gaps identified at the facilities.

Methodology:

This is a cross sectional Descriptive study that analyses data collected from a population, or a representative subset, at a specific point in time- that is cross sectional data. . A facility-based cross-sectional study was conducted for 3 months at 4 CMTCs in Surendranagar district of Gujarat. Assessment of Infrastructure, Human resources and equipment was done through structured check lists, drawn up in accordance with the guidelines. The data of children admitted from February to April, 2018 is analyzed to assess their nutritional status at the time of discharge and after three follow-up visits.Filled interview schedule and records were checked for completeness and analysis was done in MS Excel.

Results: 1. Discrepancies in Feeding Protocols. Guideline was not followed at all CMTCs, different practices were seen at different places.**2.**Stock out of Multivitamin has been observed in CMTC Chuda and Lakhtar due to expiry dates. **3.** In CMTCs (Chuda, Lakhtar) run under Gatisheel Gujarat, Payments of beneficiaries were not done regularly **.4.**.Most of the health

centers have IEC material displayed for handwashing station **6.**Good cleanliness and Hygiene were maintained at all CMTCs except Lakhtar.

Conclusion: The study was aimed at assessing overall functioning of CMAM programme and its effectiveness in improving overall health status of SAM children. It is evident from the analysis and results that there is underutilization of the services at CMTC centres. Moreover, the practices, are not followed the way it should be. There is still defaulter rate because of low awareness.

2.DISSERTATION REPORT

Situation Assessment of Child malnutrition treatment centers in 4 blocks in Surendranagar district of Gujarat

Project Guide-

Dr. P K Parmar, Chief district Health Officer

Surendranagar district, National Health Mission, Gujarat

2.1 BACKGROUND

The National Family Health Survey (2015-16) information on the sustenance status of youngsters in Gujarat demonstrates that 39% under five kids are underweight. Among Under five kids 39% are hindered and 26.4% are squandered. (NFHS 4) In Gujarat Malnutrition predominance rate among youngsters beneath three years is relatively static between NFHS-2 (1998-99) (41.6%) and NFHS-3 (200506) (41.1%). Rate of under five kids with (<3SD) weight for stature which is a cut off for SAM is 9.5%

Malnutrition signifies 'undernutrition' coming about because of insufficient utilization, poor ingestion or extreme loss of supplements and furthermore to 'over sustenance', happening because of inordinate admission of particular supplements .Malnutrition is preventable and treatable reason for horribleness and mortality and in this way there is a tremendous need set up systems for early location of development floundering and taking restorative measures previously the kid advances to serious evaluations of ailing health. The kids who have officially created serious lack of healthy sustenance require quick nutritious care and wholesome restoration and those among them with at least one conditions like contamination, loss of craving, extreme squandering, and reciprocal setting edema on legs additionally moreover require provoke therapeutic care close by support recuperation.

The accompanying are the records for lack of healthy sustenance:

3.2.1 Mid upper arm perimeter (MUAC): It is a list for estimating muscle squandering and loss of subcutaneous fat. It is utilized for kids in the age assemble half year to five years are concerned. Mid upper arm periphery <12.5 cm demonstrates squandering and that of <11.5 cm. demonstrates extreme squandering.

3.2.2Height for age (hindering): this is often a marker of straight development impediment. kids whose stature for-age Z-score is beneath less 2normal deviations (<-2 SD) from the center of the reference people area unit viewed as short for his or her age (hindered) and area unit perpetually undernourished. Youngsters at a lower place less 3normal deviations (<-3 SD) from the center of the reference people area unit thought to be very hindered.

3.2.3 Weight-for-tallness (squandering): This measures weight in connection to body length and portrays current nourishing status. Youngsters whose Z-score is underneath less two standard

deviations (<-2 SD) from the middle of the reference populace are viewed as thin (squandered) for their tallness and are intensely malnourished

3.2.4 Weight-for-age (underweight): This is a composite file of stature for-age and weight-for-tallness. It considers both intense and ceaseless lack of healthy sustenance. Children whose weight-for-age is beneath short two standard deviations (<-2 SD) from the middle of the reference populace are named underweight.

a) All youngsters going to OPD of CHC/PHC and alluded to Bal Sewa Kendra should be screened for

- Weight
- Height
- MUAC
- Wt./Age
- Wt./Height
- Clinical examination for diseases (F IMNCI)
- Edema
- Vitamin An insufficiency

b) Criteria for affirmation of child at Bal Sew Kendra should be

1.Child with SAM, recognized as (<-3 SD) weight to tallness or potentially MUAC <11.5cm.

2.Severely Underweight kids (Red order of WHO development graph)

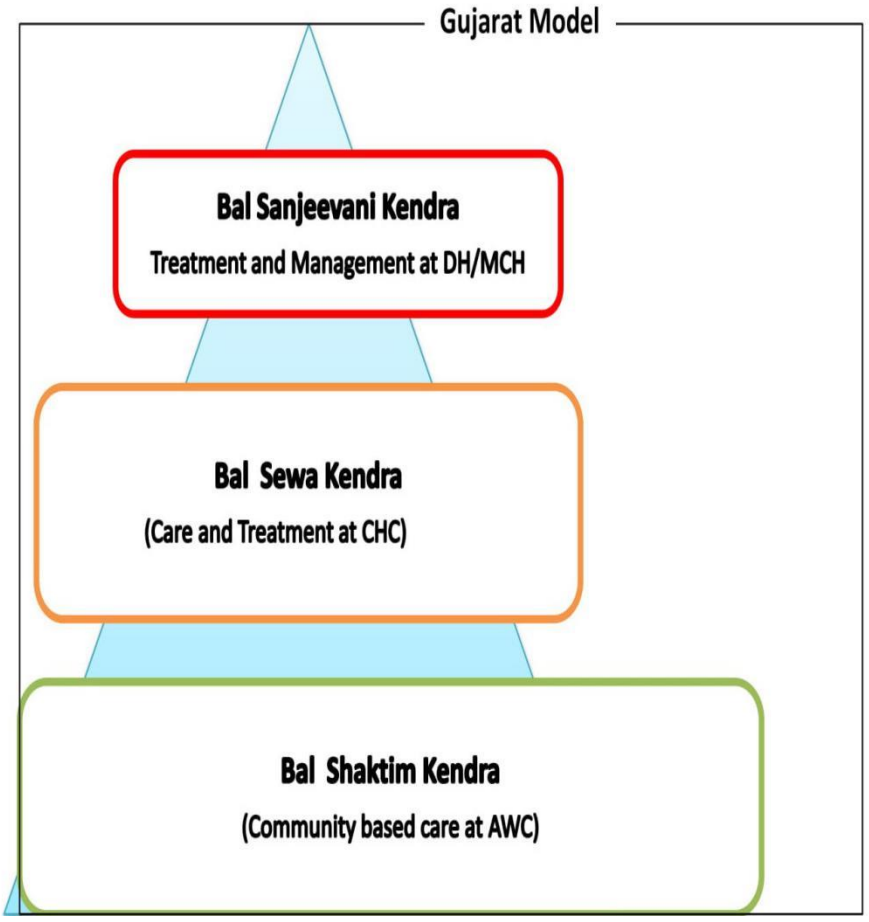
3.Underweight youngster indicating genuine development wavering (declining pattern of development line between two continuous measures)

Introduction to CMTC (Bal Sewa Kendra)

Children with extreme undernourishment are at expanded danger of mortality because of regular youth ailments since they have diminished invulnerability and unsettled metabolic system. Seriously malnourished children add to death of under-five mortality. The objectives of Bal Sewa Kendra are as follows:

1. To reduce the Malnutrition among the children‘s.
2. Promoting the IYCF practices (EIBF, EBF and complementary feeding)
3. Increasing the community participation for countering the malnutrition issues

2.1.1 Institutional Arrangement under Gujarat



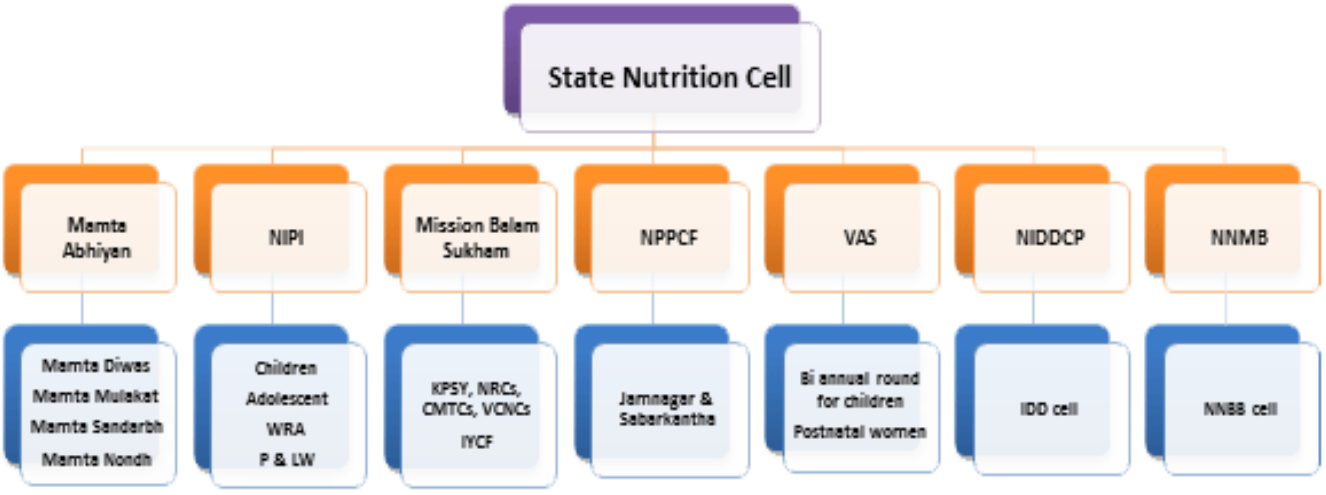
Source: CMTC guidelines

Fig .1.1 Figure showing Gujarat model of facility based malnutrition treatment

1.Bal Shaktim Kendra: "The foremost level is a gathering based control to the organization and support of malnourished adolescents without entrapments at Anganwadi Centers ".

2.Bal Sewa Kendra: “The second level is Institutional care for inpatient organization and treatment of truly malnourished children with disarrays at CHCs”.

3.Bal Sanjeevani Kendra:” The tertiary level institutional care (NRC) is for inpatient organization and treatment of genuinely malnourished youths”.



Source: https://nrhm.gujarat.gov.in/nutrition.html

Fig1.2 Figure showing Gujarat state nutrition cell and various programs under it

2.1.2 Approaches

“There are two approach for management of children”

1. “Inpatient or Facility Based management: It is seen that lone around 10-15% youngsters with Severe Acute Malnutrition demonstrate difficulties requiring immediate care.”

2. “Community based management: Approximately 85-90% of extremely malnourished kids who don't have difficulties can be dealt with an outpatient premise in the group setting. What's more, children released from the institutional care are to be proceeded for mind at group setting after adjustment and beginning of recuperation stage.”

2.2 LITERATURE REVIEW

"Children with Severe Acute Malnutrition (SAM) have 5 to 20 time's higher risk of dying than well-nourished children. With appropriate nutritional and clinical administration, many of the deaths due to severe wasting can be prevented."[1]

"There are two approaches for management of children. First is Home or Community Based management and second one is Inpatient or Facility Based management. Gujarat model of Malnutrition management has adopted 3 tier approaches**."**[2]

"Child Malnutrition Treatment Centre also known as Bal Sew Kendra is 2nd tier of approach to malnutrition providing care at sub-district or block level health centres. Children with SAM, SUW and Serious growth faltering with one or more of the conditions like infection/ loss of appetite/ bilateral pitting edema on legs are beneficiaries of Bal Sewa Kendra and shall be treated as indoor cases for minimum 21 days. This strategy is a adoption and is different from Govt. of India guidelines for institutional management which is focused on only SAM children**."**[3]

2.3 RESEARCH METHODOLOGY

2.3.1 Research Question:

Why is the facility services utilization rate low in the CMTC centers in Surendranagar district of Gujarat?

2.3.2 Rationale for the study:

[1]"**(***Operational Guidelines on Facility based management of malnourished children at "Bal Sew Kendra" (Child Malnutrition Treatment Center). Gandhinagar: Commissioner ate of Health, Government of Gujarat; 2012"*

[3]"https://www.fantaproject.org/sites/default/files/resources/CMAM_Training_Mod6_ENGLISH_Nov2008.pdf"

Child nutrition is a very concerning issue for public health field as undernourished children have significantly high risk of both mortality and morbidity .Also, under nutrition leads to growth retardation and other impaired psycho social cognitive development.Referrals made from Anganwadi centers (AWC) and other facilities are low. In particular, utilization of Child Malnutrition treatment Centers (CMTCs) in district Surendranagar, Gujarat is found to be low as compared to the performance of other districts. Though Gujarat govt. has well planned monitoring and evaluation for the program, a rapid qualitative situation analysis was done to find the gaps for CMAM and CMTC.

2.3.3 Objectives of the study:

The main objectives of the study are: -

1. To assess the availability of services at CMTCs in Surendranagar District in terms of infrastructure, human resources and equipment according to the Operational Guidelines.
2. To assess the improvement in health status of children admitted in CMTCs in the district.
3. To assess the functioning of malnutrition centers in 4 centers.
4. To identify gaps and key interventions to fill up the gaps identified at the facilities.

2.4.4 Study design:

Cross Sectional and Descriptive Study

This study design will be appropriate as this is an descriptive study that analyses data collected from a population, or a representative subset, at a specific point in time- that is cross sectional data.

A facility-based cross-sectional study was conducted for 3 months at selected 4 CMTCs in Surendranagar district of Gujarat. Assessment of Infrastructure, Human resources and equipment was done through structured check lists, drawn up in accordance with the guidelines. The data of children admitted from February to April, 2018 is analyzed to assess their nutritional status at the time of discharge and after three follow-up visits.

2.4.5 Data collection

The main source of information for this study is based on the data collection from the facility.

Primary data is collected of SAM admission and discharge rate. Data is taken from 4 facility based healthcare centres (CMTC)

2.4.6 Sample Area

Following are CMTC of Surendranagar district.

Sr. No	Place	Operational Under
1	Limbdi	NHM
2	Chuda	Gatisheel
3	Sayla	NHM
4	Chotila	NHM
5	Lakhtar	Gatisheel
6	Vadhvan	Gatisheel
7	Surendranagar NRC	NHM
8	Dhagandhra	NHM
9	Patdi	NHM

Table 1.1Table showing list of CMTC in the district

On the basis of purposive sampling, facility based malnutrition treatment centres -2 under gatisheel (Lakhtar,Chuda)and 2 under NHM(Chotila,Patdi) were selected.

2.4.7 Data analysis

The data is collected through comparison list based on the checklist filled. The checklist is used as the probable cause of low performance rate MTC, the comparison is based on infrastructure, working conditions, practice protocol

2.5 Findings and Observation of CMTC visit:-

1. Comparative analysis by checklist

SCALE: Satisfactory more than 70%

Unsatisfactory -40-70%

Poor- less than 40%

PARAMETERS	**CMTC PATDI**	**CMTC LAKHTAR**	**CMTC CHUDA**	**CMTC CHOTILA**
1. **HR**				
Nutritionist	YES	YES	YES	YES
Staff nurse	YES	NO	NO	NO
Cook cum caretaker	YES	YES	YES	YES
2. ADMISSION PROTOCOLS				
Weight taken	Satisfactory	Unsatisfactory	Satisfactory	Satisfactory
Measurement of MUAC done	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Measurement of length done	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Appetite test conducted	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Giving medications, antibiotics	Satisfactory	Unsatisfactory	Satisfactory	Satisfactory
Feeding schedule followed	Poor	Poor	Satisfactory	Satisfactory
KMC	Satisfactory	Unsatisfactory	Unsatisfactory	Satisfactory
3. CLEANLINESS HYGIENE				
Hand Washing	Poor	Poor	Poor	Poor
Mother’s cleanliness	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bedding and laundry	Satisfactory	Poor	Satisfactory	Satisfactory

Hand wash technique demonstrated to mother	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory
Nails of beneficiary and staff cut and clean	Satisfactory	Unsatisfactory	Satisfactory	Satisfactory
Toys	Poor	Poor	Poor	Poor
Proper toilet facility	Unsatisfactory	Poor	Satisfactory	Satisfactory
1. COUNSELLING				
Mother counseled about BF and CF	Yes	Yes	No	No
IYCF banners available	Yes	No	Yes	No
Counselling session conducted as per schedule	Yes	Yes	Yes	Yes

Table 2.1Table showing comparative analysis of CMTC in the district

2.5.1 FINDINGS FROM CHECKLIST

1. Discrepancies in Feeding Protocol. As per guideline of F SAM, child who failed Appetite test, should be given :

   - F-75 for 7 days (Phase 1 Stabilization phase)
   - F-100 for 3 days (Transition Phase)
   - F 100 and EPD alternatively (Phasse-2 Catch up growth)

But guideline was not followed at all CMTCs, different practices were seen at different places.

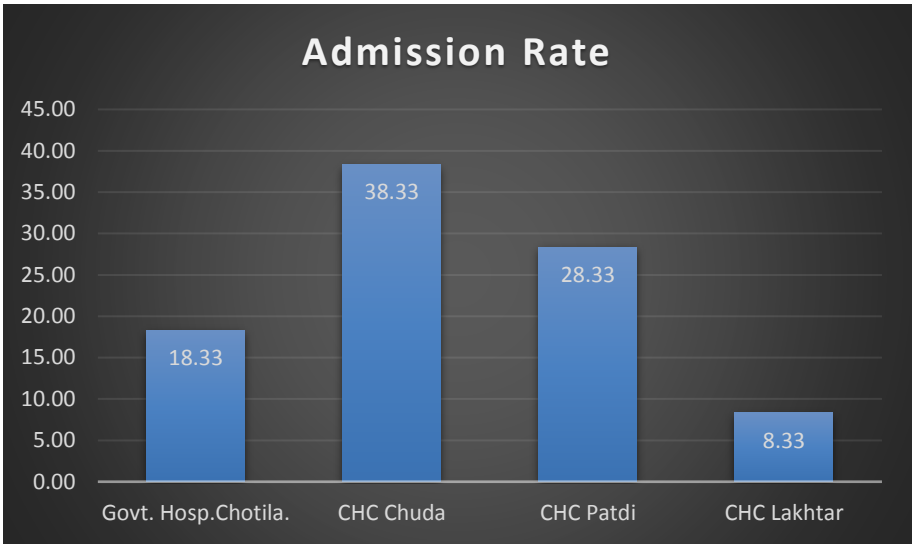
2. At the time of visit at CMTC chuda, on malaria meeting was arranged in CMTC.

Many of the workers were found sitting on cots of children which increase infection in children. Such meetings should not be arranged in CMTC.

3. Due to lack of space, the distance between two cots is not maintained at CMTC Patdi.
4. Stock out of Multivitamin has been observed in CMTC Chuda and Lakhtar due to expiry dates. Children were not given Multi vitamin since October 2017 in in CMTC Chuda and Lakhtar.
5. In CMTCs (Chuda, Lakhtar) run under Gatisheel Gujarat, Payments of beneficiaries were not done regularly.
6. There should be a definitely need of refresher training of IYCF/NIPI and F SAM for all NAs of CMTCs/NRC
7. Most of the health centers have IEC material displayed for handwashing station
8. Good cleanliness and Hygiene were maintained at all CMTCs and NRC except Lakhtar.
9. Adequate slippers were found for staff and visitors.

2.6 DATA ANALYSIS AND INTERPRETATION

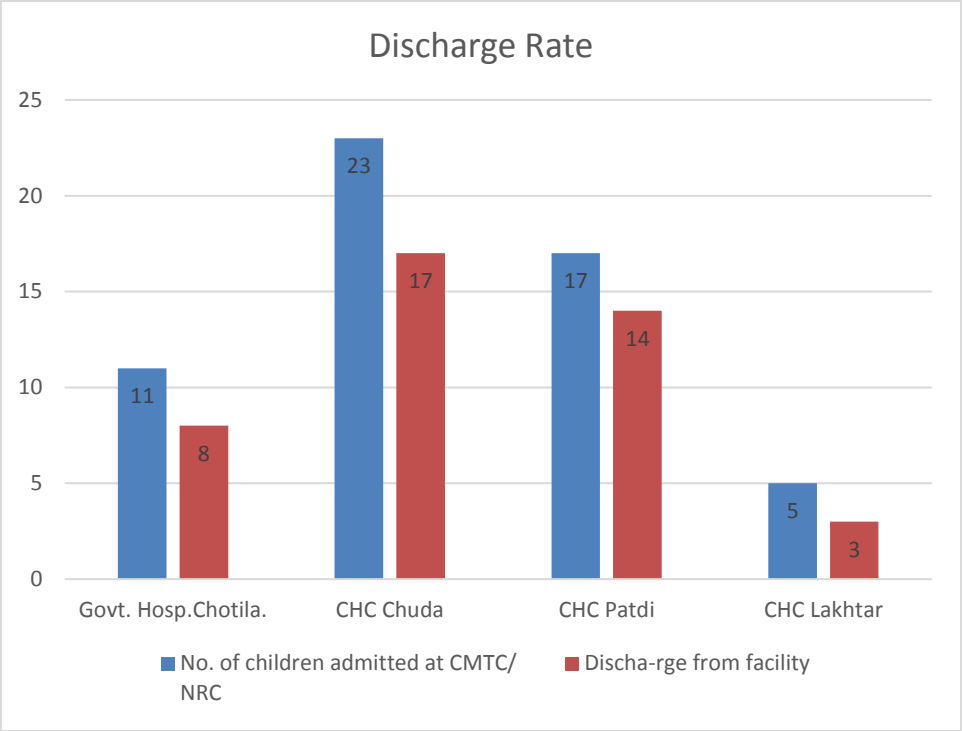
2.6.1. Admission Rate



Graph 1.1. Graph showing admission rate in the selected CMTC (N=56)

The graph shows that the admission rate for Chotila and Patdi are 38 %and 28 %, and lowest in Lakhtar of 8%. This indicates poor admission rate and low rate of referring of SAM children to the treatment facilities.

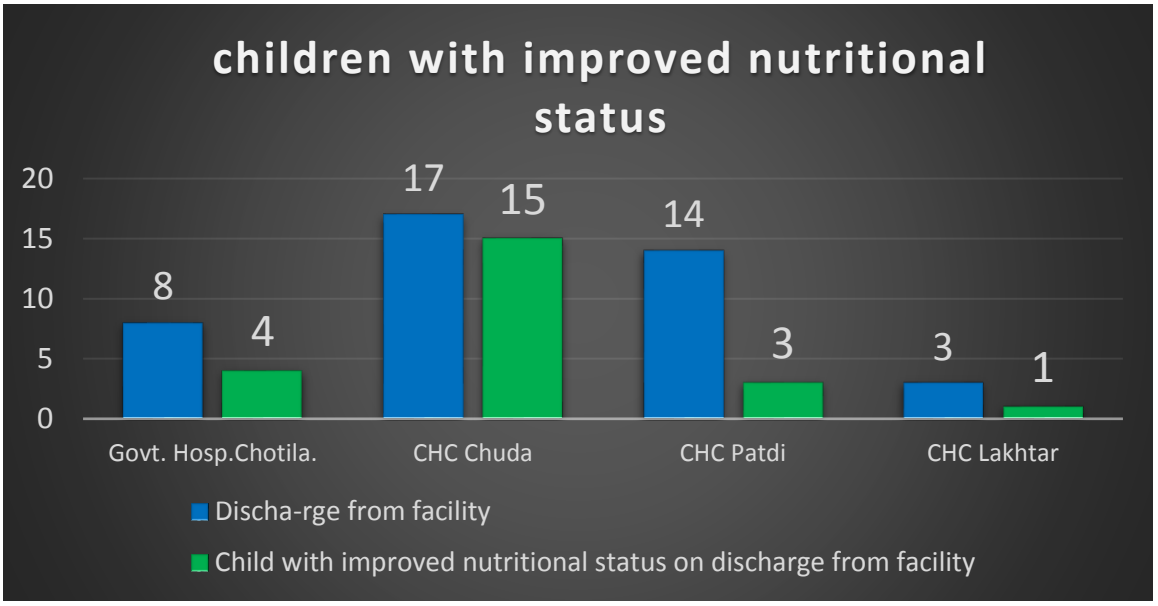
2.6.2. Discharge rate



Graph 1.2. Graph showing discharge rate (n=56)

The graph depicts that that the discharge rate is less as compared to admission rate in all the 4 centrea under study which means children do not complete the full treatment and 14 days compulsory stay in the facility, inferring to low awareness among beneficiaries.

2.6.3 Children with improved nutritional status

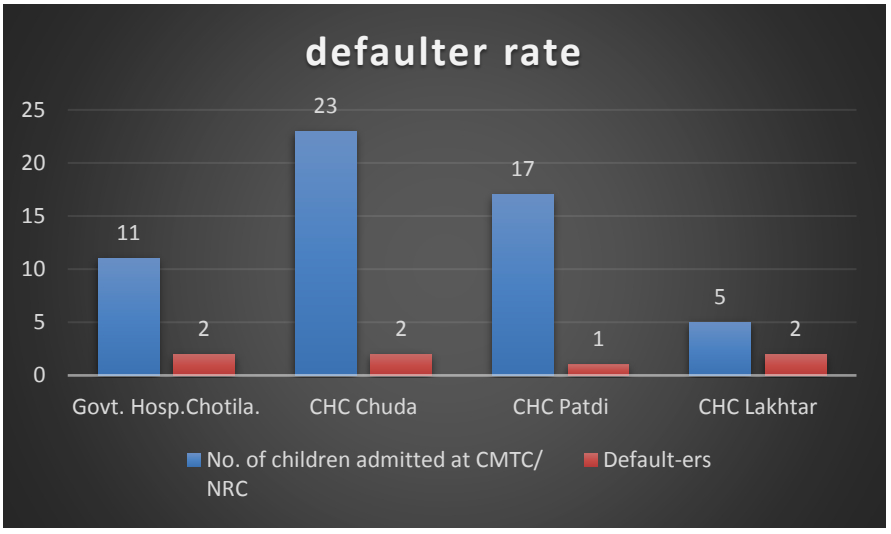


Graph 1.3. Graph showing children with improved nutritional status (n=56)

The graph indicates thatout of the total discharged children, the improvement in the nutritional status of the children is not up to the mark as it shouldbe. Thisemphasize the need of proper counselling and feeding practices to the beneficiaries.

2.6.4 Defaulter rate

n=56



Graph 1.4. Graph showing defaulter rate in various CMTCs

The figure shows the defaulter rate of discharged children is 15% or less in all the four centres of the district, which should be nil under the standard case. This indicates low awareness among beneficiaries and lack of knowledge about consequences due to malnourishment.

2.6 CONCLUSION

The study found that many of the problems are in local nature which can be addressed by providing technical support locally through effective mentoring. Few of the issues need better coordination withdistrict health andplanning implementation unit authorities. Based on the evidence and experience from the study, it is envisaged to provide technical support through technical experts by periodic visits to the centers and districts with the above mentioned objectives. The study was aimed at assessing overall functioning of the programme and its effectiveness in improving overall health status of severely malnourished children. It is observed from the analysis and results that there is underutilization of the services at CMTC centres. Along with it the practices, are not followed the way it should be. There is still defaulter rate because of low level of awareness.

2.7 RECOMMENDATIONS

1. Strengthen community mobilization
2. Providing refresher training for IYCF, feeding etc. of the staff.
3. RBSK – MO ensuring the visit of the delivery points and home visit. Full body checkup of the new born and timely referring at higher facility
4. Health education during follow up visits like for breast feeding
5. Identification of the low birth weight baby and referring to the higher facility.
6. Promotion of the KMC and IYCF practices during HBNC visits.
7. Support and motivation amongst the staff

2.8 REFERENCES

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