

Situational Analysis of Malnutrition in Tribal Area of Banswara, Rajasthan

By

Vishnu Priya Yadav

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2017-2019



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TO WHOMSOEVER MAY CONCERN

This is to certify that Vishnupriya student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Vaagdhara, Banswara from 4th February to 25th April , 2019

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.

The Internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.



Dr. P.R. Sodani
Pro – President
The IIHMR University, Jaipur



Dr. Sandesh Kumar
Associate Professor
The IIHMR University, Jaipur



The certificate is awarded to

Vishnu Priya Yadav

In recognition of having successfully completion of her
Internship in the department of

Child Nutrition

And has successfully completed her Project on

Situational Analysis of Malnutrition in Tribal Children of Banswara, Rajasthan

Date of Submission - 25.04.2019

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

We wish her all the best for future endeavors


Training & Development

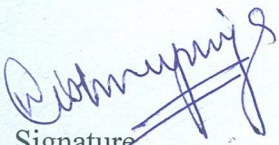

Zonal Head-Human Resources



THE IIMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation title **Study on Assessment of malnourished children under 5 years of age group in Banswara district, Rajasthan** and submitted by VISHNUPRIYA YADAV Roll No. 0695 under the supervision of Assistant Prof. Dr. Sandesh Sharma for award of MBA in Hospital and Health Management of the University carries out during the period from 04/02/2019 to 24/04/2019 embodies my original work and has not formed the basis for the awarded of any degree, diploma associate ship, fellowship, title in this or any other institute or other similar institution of higher learning.


Signature

A. Abstract:

Malnutrition among under-five children is an important concern for the health authorities in India. The aim of the present review was to assess the burden of under-nutrition and over-nutrition, its determinants and strategies required to tackle malnutrition among under-five children in India. Recent data were collected from Google search, Medline, and others. The information retrieved was reviewed and analyzed for discrepancies. Existing evidence shows that the prevalence of under-nutrition among under-five children was high and varied widely (under-weight: 39-75%, stunting: 15.4-74%, wasting: 10.6-42.3%) depending on the assessment methodology adopted. Studies on assessment of over-nutrition status among under-five children were limited. Distribution of various types of risk factors and its influence on nutrition status of children in a given set up should be analyzed for planning the control measures. Strengthening public health interventions for mild malnutrition cases and vulnerable groups, effective implementation and evaluation of the strategies at regional level, research on overweight, obesity and its etiological factors and steps for improving socioeconomic development are the prerequisites for tackling malnutrition among under-five children in India.

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1. Literature Review

- In India 20 percent children among the age group under five years suffers from wasting due to acute malnourishment. One third World's malnourished children lives in India. 43 per cent children are underweight and 48 per cent (i.e. 61 million children) are stunted due to chronic under nutrition in India (Source NFHS 3, 2005-2006)
- A study on nutritional status of children under 6 years of age in Allahabad district of Uttar Pradesh by Hari Shankar et al (2004). The prevalence of PEM in under 6 year's children was 26.83%.
- Bhalani et al (2002) conducted a cross sectional study among 30 randomly selected Anganwadi centres in Vadodara city which showed that 62.9% were malnourished
- A cross sectional study which is community based of under five children from urban slum of Pune by Anjali B et al., (2012) showed that undernutrition was maximum in 49-60 months age group
- Srivastava Anurag, et al (2012) carried out a cross sectional study in selected urban slums of Bareilly district, Uttar Pradesh which showed that malnutrition increased significantly with the increase in age.
- A cross sectional study done by Dr. Sabale Rupali et al (2012) among under five children attending Under Five Clinic which was located in the midst of the urban slum area, Mumbai showed age was significantly associated with malnutrition.
- A study done by Paramita Sengupta, et al (2010) amongst under-five children living in an urban slum of Ludhiana, observed that children aged 48-59 months were to at the highest risk of being under-nourished.
- A study done in (2008) by G.M. Antony et al states that the undernutrition among preschool children is still a major public health problem in India. The time trends in nutritional status of pre-school children showed that, the trend in wasting and underweight has not improved much.

- Deeksha Kapoor et al., (2005) showed that prevalence of underweight, was 75% among children, 9-36 months of age.
- A cross sectional study in Siliguri municipal area conducted by SK et al (2000), North Bengal which showed overall prevalence of malnutrition was highest (74.19%) in the age group 12-23 months, followed by 24-35 months (66.18%) and 36-59 months (60.47%). But the trend was somewhat different in case of severe degree of malnutrition (Grade III and IV) which was highest in 6-11 months of age group (12.82%) followed by 12-23 months (9.68%) age group.
- S. Biswas et al (2009) showed that boys were significantly heavier and taller than girls at ages 2-4 years. A study done in 2008 by I Dey et al 42 found that 55.9% of the girls were underweight compared to 46.6% of the boys.
- A cross-sectional study done by M. K. Goel et al., (2007) in slum area of Rothak city on 530 children, aged between 1-6 years, revealed that no statistical significance of undernourishment was noticed in gender. A study done in 2007 by Mittal et al 43 showed that both kinds of malnutrition were common in females than in males.
- A study done in (2011) by Munesh Kumar Sharma et al., showed that children belonging to slum area and of low standard of living index (SLI) were at significantly higher risk (P75% families of low standard of living, total energy availability was below recommended daily intake (RDI).
- A study showed that higher malnutrition prevalence among children of lower income group mothers conducted by Braja Kishori et al (2007).
- A study done in (2011) by Munesh Kumar Sharma et al., showed that children belonging to slum area and of low standard of living index (SLI) were at significantly higher risk (P75% families of low standard of living, total energy availability was below recommended daily intake (RDI).
- Gholamreza Sharifzadeh et al (2010) conducted a cross sectional and descriptive analytical study on children under 6 years old in South Khorasan Iran, which showed that prevalence of underweight had a significant relationship to mothers' job.
- Nguyen Ngoc Hien et al (2008) showed that the mother's education level was found to be significantly related to malnutrition.

- Studies have shown that the rural children are more likely to be underweight than the urban children. Further, poor children are twice more likely to be underweight than the rich. However, little difference is seen in underweight prevalence of boys and girls (MICS & DHS surveys 2003-2008).

Aim: Assessment of malnourished children in tribal area of Banswara, Rajasthan

Objectives:

To assess the malnourished children under the age of five years in Peepalkhunt and Ghatol Block of Banswara.

To screen out the malnourished children under the age of five years in Peepalkhunt and Ghatol block of Banswara.

2. Methodology

Source of data: Primary data was collected through observations and by check list during health checkup camps.

Study tool: Check list

Study type: Descriptive Study

Study Duration: Feb 2019- April 2019

The study was conducted in the duration of three months by visiting the tribal area of Banswara such as the villages of Ghatol and Peepalkhunt Block. In one day on an average the data was collected of around nineteen children in forty five visits in one and half months. Therefore, total sample collected was eight hundred thirty three children sample.

Study Area: Ghatol and Peepalkhunt Block of Banswara district, Rajasthan

Sample size: 739

Sampling method: Convenient Sampling

For the purpose of health checkups (screening of malnourished children) few components were selected as follows.

Health checkup camps organized in 15 villages for the screening of malnourished children of age group 0 -59 months and screened total 739 children age of up to 59 months.

3. Results

Table:1-Age and sex distribution of sample

S.No.	Villages covered	Date	Total Attendant	Total Malnourished Children	Severely Malnourished children
1	Bha, Phutiya Dungri+Bhema Kheda	07.02.2019	103	35	6
2	Nalda+Thechla, Keeka ki Naal	08.02.2019	151	30	4
3	Gauj Rathod, Mahudi Kheda	11.02.2019	93	32	2
4	Bori, Miyasa	12.02.2019	121	23	3
5	Data, Gadra	13.02.2019	143	49	5
6	Dhaarna, Undwela	14.02.2019	128	30	5

	Total Boys		Total Girls		Total		Ratio
AGE (mo)	Number	Percentage	Number	Percent age	Number	Percentage	Boy: girl
6-17	38	55.9	30	44.1	68	8.4	1.3
18-29	45	50.0	45	50.0	90	11.1	1.0
30-41	76	51.4	72	48.6	148	18.2	1.1
42-53	85	43.4	111	56.6	196	24.2	0.8
Table: 2-Total no. of children screened from particular village						1.1	0.8
Total	384	47.3	427	52.7	811	100.0	0.9

Age and sex distribution of sample

	Total number 739	Number of Boys 362	Number of Girls 377
Moderate malnutrition prevalence	(100) 13.2 % (11.0 - 15.8 95% C.I.)	(49) 13.5 % (10.4 - 17.4 95% C.I.)	(51) 12.9 % (9.9 - 16.5 95% C.I.)
Severe malnutrition prevalence	(110) 14.5 % (12.2 - 17.2 95% C.I.)	(54) 14.9 % (11.6 - 19.0 95% C.I.)	(56) 14.1 % (11.1 - 17.9 95% C.I.)

Table.3-Acute malnutrition prevalence based on weight-for-height
And by sex

		Severe wasting		Moderate wasting		Normal		Oedema	
Age (month)	Total no.	Number	%	Number	%	Number	%	Number	%
6-17	68	12	17.6	11	16.2	45	66.2	0	0.0
18-29	88	16	18.2	4	4.5	68	77.3	0	0.0
30-41	145	23	15.9	24	16.6	98	67.6	0	0.0
42-53	188	16	8.5	27	14.4	145	77.1	0	0.0
54-59	250	39	15.6	34	13.6	177	70.8	0	0.0
Total	739	106	14.3	100	13.5	533	72.1	0	0.0

Table.4- Acute malnutrition prevalence by age, based on weight-for-height z-scores and/or oedema

	Total	Boys	Girls
Prevalence of stunting	(229) 27.6 % (24.7 - 30.8 95% C.I.)	(122) 31.0 % (26.7 - 35.8 95% C.I.)	(107) 24.5 % (20.7 - 28.8 95% C.I.)
Prevalence of moderate stunting	(107) 12.9 % (10.8 - 15.4 95% C.I.)	(53) 13.5 % (10.5 - 17.2 95% C.I.)	(54) 12.4 % (9.6 - 15.8 95% C.I.)

Prevalence of severe stunting	(122) 14.7 %	(69) 17.6 %	(53) 12.2 %
	(12.5 - 17.3 95% C.I.)	(14.1 - 21.6 95% C.I.)	(9.4 - 15.6 95% C.I.)

Table.5- Stunting prevalence by age based on height-for-age z-scores

		Severe stunting		Moderate stunting		Normal	
Age (month)	Total	Number	%	Number	%	Number	%
6-17	68	24	35.3	7	10.3	37	54.4
18-29	90	26	28.9	23	25.6	41	45.6
30-41	148	33	22.3	32	21.6	83	56.1
42-53	196	20	10.2	23	11.7	153	78.1
54-59	308	13	4.2	19	6.2	276	89.6
Total	810	116	14.3	104	12.8	590	72.8

Table.6- Overweight prevalence based on weight for height cut offs and by sex (no oedema)

4. Conclusion

- ❑ This study shows around 27% of children are malnourished out of which 13.2% are severely malnourished and 14.5% are moderately malnourished and prevalence of malnourishment globally is also 27.7%. Total 29.2% of wasting is there in which, 15.6% is severe wasting and 13.6% is moderate wasting and Prevalence of stunting found to be 27.6% out of which 14.7% is severely malnourished and 12.9% is moderately malnourished.
- ❑ From check list it's found that around 50% of the children are not going to Anganwadi or the mothers are not practicing the breastfeeding. The finding confirm the well-known association of lack of breastfeeding and linkage with Anganwadi with malnourished children
- ❑ Also there is need for nutrition camps and programmes for the awareness about malnourishment to their parents and community to avoid the malnourishment.

5. **Recommendations**

- Gap analysis would be done in a particular time period.
- In a particular time period, awareness camps and programmes organization will be helpful in understanding the mothers regarding the breastfeeding and nutrition importance.
- Nutrition camp would be a better initiative for the reduction in child malnutrition by providing the nutritious diet to all the malnourished children so that they can know about the proper nutritious diet.
- Linkage to moderately malnourished children to Anganwadi for betterment of their condition by having nutritious diet at Anganwadi and SAM children will be immediately referred to NRC's for intensive feeding to recover loss.

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