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PERCEPTION OF HEALTH PROVIDERS AND BENEFICIARIES REGARDING MANAGEMENT OF UNDER NUTRITION

[1]Manohar Bhatia, [1]Ashok Mishra & [2]Vikash Dwivedi
[1]Department of PSM/Community Medicine, G.R. Medical College, Gwalior
[2]District Hospital, Chhindwara (M.P.)

ABSTRACT
In developing countries, malnourished children comprise a significant proportion of pediatric deaths. Most of these deaths can be prevented, if recommended treatment guidelines and appropriate management practices are followed. The objective of current study was to identify the difficulties and lacunae in community services and hospitals towards the management of under nutrition. The cross-sectional study was conducted in Gwalior District among Doctors, Supporting Staff (Anganwadi workers, ANM and Feeding Demonstrators) and Mothers using a pre-designed, pre-tested, semi-structured questionnaire. 64.50% mothers accepted that their child has been weighed at least once 21% mothers didn't know the significance of weighing the child. 94% Doctors believed that mothers are unable to follow physician's advice. 88% Doctors accepted that they focus on treating infections & complications rather than managing under nutrition. 67% supporting staff and 77.33% mothers believed that there is inadequate infrastructure to deal with the problem of under nutrition. 87% said that better quality and quantity of food should be provided at Anganwadi centres. 82% mothers considered interpersonal interactions (home visits) to be important in reducing under nutrition.

KEYWORDS: Nutrition Counseling, Supporting Staff, Growth monitoring, Hospital services**.**

INTRODUCTION

In hospitals in developing countries, malnourished children comprise a significant proportion of pediatric deaths. Fatality rates of 20-40% are not uncommon. Hospital treatment of malnourished children is often poor and outmoded and consequently fatality rates are high. Data from various studies worldwide show that the median fatality rate has not changed for the past 5 decades, and one in four severely malnourished children died during treatment in the 1990's[1]. This disproportionate contribution of severe under nutrition to inpatient deaths is rarely recognized by doctors or administrators; children may not be routinely weighed on admission and under-nutrition is likely to be diagnosed only if no other clinical conditions are present. Most severely malnourished children are reported as cases of gastro-enteritis or pneumonia, so under nutrition often does not even appear in hospital statistics[2]. There are some centers that do very well, with fewer than 5% dying, whereas others do poorly, with approximately 50% of the malnourished dying. This disparity in outcome is not a result of differences in severity. It is the result of treatment practices[2]. Where mortality is low, a set of principles is followed; where mortality is high, the treatment is inappropriate [2]. Most of these deaths can be prevented if recommended treatment guidelines and appropriate management practices are followed. Specific guidelines have been developed by WHO and were subsequently adapted by IAP for management and reporting of under nutrition. However the intensity with which these guidelines were developed was not matched by a similar effort in the dissemination of this information and training of Doctors and health staff for the adaptation of these guidelines in practice. The management of under nutrition also involves a proper and methodological dietary advice to the parents, especially mother. However the health services of our country are lacking in this field; our health system is in dire need of well evaluated strategies with regional variations towards inclusion of dietary advice as an important part of management of under nutrition. It is clear from various studies that under nutrition is a multi-faceted and chronic problem which can be addressed through a multi-pronged approach. One such cause of chronicity of this problem appears to be the lack of proper management of under nutrition at community as well as hospital level. As a result, the current study was undertaken to identify the difficulties and lacunae in community services and hospitals towards the management of under nutrition.

METHODOLOGY

The present study was a population based cross-sectional study carried out in Gwalior district for a period of 14 months from October 2012 to November 2013. Study was conducted in Government health centres in Gwalior District. Total 50 Government Doctors, 100 Supporting Staff (Anganwadi workers, ANM, Feeding Demonstrators) and 300 Mothers were included in the study. Mothers were selected based on nutritional status of the child. Using the growth chart 'Normal', 'Moderately undernourished' and 'Severely Undernourished ' children were selected, 100 in each group. Mothers of these children were included in the study. As per NFHS-3, prevalence rate of underweight for age of below 60 months children in Madhya Pradesh is 60.4%[3]; thus the sample size calculated was 96 which was rounded off to 100; so 100 mothers were selected in each category. All these above mentioned participants

were selected across the district giving appropriate representation to the urban and rural areas. Doctors and Supporting Staff not willing to participate were not included in the study while mothers having child below 06 months or above 05yrs of age were not included.

Separate pre-designed, pre-tested, semi structured questionnaire for Doctors, Health Care Workers and Mothers were used for data collection. Data analysis was carried out by percentage, proportion, chi-square test and Odds ratio was calculated utilizing Odds Ratio calculator. The study received ethical approval from the Ethics Committee, Gajra Raja Medical College, Gwalior.

RESULTS

As shown in Table No.1, out of 200 mothers of undernourished children, 64.50% (62+67) accepted that their child has been weighed at least once. When asked about reasons for weighing the child 43% (46+40) said that weight informs health and nutritional status while 36% (38+34) said that change in weight over time (increase or decrease) is significant. 21% (16+26) mothers didn't know the significance of weighing the child. 75.50% (76+75) mothers got advice about child's nutrition from elders of family; 68% (64+72) mothers received advice from AWWs and only 20.50% (22+19) mothers received advice from Doctors about child's nutrition. Out of 100 mothers of normal nourished children, 79% (79) accepted that their child has been weighed at least once. When asked about reasons for weighing the child 48% (48) said that weight informs health and nutritional status while 50% (50) said that change in weight over time (increase or decrease) is significant. 02% (02) mothers didn't know the significance of weighing the child. The results are statistically significant ($p < 0.05$). 91% (91) mothers got advice about child's nutrition from elders of family; 50% (50) from AWWs and 58% (58) from Doctors. The results are statistically significant ($p < 0.05$) Data collected from this study also indicated that even though efforts were made to generate nutrition related awareness and social mobilization through different channels the messages were not resonating. Health officials perceived that ANMs and AWWs with support from ASHAs were instrumental in communicating the importance but few mothers said that they had received any health messages relating to child nutrition.

TABLE No. 1 Mother's Perception Regarding Weight & Growth Monitoring

S. No.	Mother's Perception	Normal Child (n=100)	Moderate Under nutrition (n=100)	Severe Under nutrition (n=100)	P value
A.	Child ever weighed	79% (79)	62% (62)	67% (67)	$p < 0.05$
B.	REASONS FOR WEIGHING				
1.	Weight informs health and nutritional status	48% (48)	46% (46)	40% (40)	$p < 0.05$
2.	Change in weight over time	50% (50)	38% (38)	34% (34)	
3.	Don't know	02% (02)	16% (16)	26% (26)	
C.	ADVICE ABOUT NUTRITIONAL STATUS*				
1.	Elder family member	91% (91)	76% (76)	75% (75)	$p < 0.05$
2.	Anganwadi Centre	50% (50)	64% (64)	72% (72)	$p < 0.05$
3.	Doctor	58% (58)	22% (22)	19% (19)	$p < 0.05$

*Multiple Responses

Table No.2 provides a view of different groups regarding difficulties in management of under nutrition at health facilities in rural & peri-urban areas. 94% (47) Doctors believed that mothers lack awareness about feeding & caring practices and are unable to follow physician's advice. 88% (44) accepted that physicians focus on treating infections & complications rather than managing under nutrition. 70% (35) also believed that there is shortage of trained personnel for Nutrition & Health Education. 52% (26) believed there is inadequate infrastructure to deal with the problem of under nutrition and 18% (09) doubted health workers competence & confidence to manage under nutrition.

73% (73) supporting staff believed that there is shortage of trained personnel for Nutrition & Health Education. 67% (67) believed there is inadequate infrastructure to deal with the problem of under nutrition. 54% (54) believed that physicians focus on treating infections & complications rather than managing under nutrition and 27% (27) also doubted health workers competence & confidence to manage under nutrition. 77.33% (231) mothers believed there is inadequate infrastructure to deal with the problem of under nutrition while 61.33% (184) believed that lack of awareness/ inability to follow advice is a major barrier in dealing with the problem of under nutrition.

Mothers were asked for additional efforts/facilities to be applied for reducing under nutrition (Table No.3). Out of 200 mothers of undernourished children, 87% (84+90) said that better quality and quantity of food should be provided at Anganwadi centres. Equal number of mothers *i.e.* 87% (80+94) said that economic assistance and poverty alleviation is as important as any other measure to reduce undernutrition among under five children. 82% (84+80) mothers considered interpersonal interactions (home visits) to be important in reducing undernutrition. 73% (72+74) mothers said that improvement in health services is also required while only 28% (28+28) mothers considered education and counseling on child feeding to be important in reducing under nutrition among five children. Only 23% (21+25) supported opening of additional Anganwadi Centres.

Out of 100 mothers of normal nourished children, 79% (79) called for improvement in health services and 68%

(68) called for providing proper meal and better quality of supplementary food at Anganwadi centres and 55% (55) supported economic assistance and poverty alleviation to reduce under nutrition among five children. In this group also only 20% (20) mothers considered education and counseling on child feeding to be important and only 08% (08) supported opening of additional Anganwadi Centres.

TABLE No. 2 Difficulties in management of Under nutrition at Health Facilities in Rural & Peri-urban areas: Perception of different Groups

S. No.	Difficulties	Doctors (n=50)	Supporting Staff (AWW, ANM, FD) (n=100)	Mothers (n=300)
1.	Inadequate infrastructure	52% (26)	67% (67)	77.33% (231)
2.	Lack of trained personnel (for Nutrition & Health Education)	70% (35)	73% (73)	22.66% (68)
3.	Provider competence & confidence to manage under nutrition	18% (09)	27% (27)	25.33% (76)
4.	Lack of focus on managing nutrition (Focus on treating infections & complications)	88% (44)	54% (54)	27% (81)
5.	Poor Feeding & caring practices & follow up/ Lack of awareness	94% (47)	67% (67)	61.33% (184)

*Multiple Responses

TABLE No. 3 Mother's Perception regarding efforts for reducing Under nutrition among under five children

S. No.	Mother's Perception	Normal Child (n=100)	Moderate Under nutrition (n=100)	Severe Under nutrition (n=100)
1.	Improving Quantity and Quality of meal provided at AWC	68% (68)	84% (84)	90% (90)
2.	Improved Health Services	79% (79)	72% (72)	74% (74)
3.	Economic assistance/ Poverty alleviation	55% (55)	80% (80)	94% (94)
4.	Mother's education/ counseling on child feeding	20% (20)	28% (28)	28% (28)
5.	Open additional Anganwadi Centre	08% (08)	21% (21)	25% (25)
6.	Interpersonal interactions (Home visits)	66% (66)	84% (84)	80% (80)

*Multiple Responses

DISCUSSION

It is possible that not all ANMs, AWWs, and ASHAs received the correct information especially if anyone of these health leaders was illiterate and information was presented to them only in a print format. Studies have shown that although communication for behavior change through AWW is considered crucial weapon against poor health and malnutrition, but the information that AWW is conveying to mothers may not be communicated effectively enough to impact positively on mother‘s behavior[4]. There is substantial body of research showing that nutrition education can improve dietary intake and child growth. A program evaluation in Bangladesh found that nutrition education increased dietary intake and improved children's weight gain[5]. Another evaluation in rural areas of the Philippines showed that nutrition education for mothers improved infant diets[6]. Bhandari et al. (2003) found that an educational intervention to promote exclusive breastfeeding in India lowered the prevalence of child diarrhea at both 3 months (odds ratio of 0.64; $P = 0.03$) and 6 months (odds ratio of 0.85; $P = 0.04$)[7]. In a non-randomized community-based study, Guldan et al. (2000) showed that a culturally appropriate nutrition education programme improved child growth in rural Sichuan in China[8].

CONCLUSION

The health system needs to be re-oriented to deal with the current status of childhood under-nutrition. Every contact with children and their parents has to be utilized for focusing on the importance of proper nutrition and the importance of addressing mild and moderate undernutrition at the earliest. Professional organizations should come forward to mobilize all child health care functionaries to address the nutrition issues at priority in their day to day practice. The state and the organizations should take steps to sensitize Doctors and supporting staff to discuss nutrition related issues with parents rather than only treating the current illness of the child. The issues of AWWs and other field staff should also be addressed along with a regular increment in their honorarium so as to motivate them for regular home visits and proper nutrition counseling.

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