International Journal of Psychosocial Rehabilitation, Vol. 18, Issue 02, 2014
ISSN: 1475-7192

Improvement Of Nutritional Status Of Maternal Nutrition Through Local Available Foods.

[1]*Seema Singh, [2]Ruby Dutta, [3]Asha Kumari

Community-based approaches for improving nutrition, build capabilities and empower communities to effective demand services and at the same time support local available food for improving health and nutrition states of pregnant/lactating and children under two year. This involves increasing the participation of communities in the design, implementation and monitoring of research study and its interventions. Achieving household food and nutrition security requires coordination among local organizations that support food insecure groups.

A key dimension of this study is enabling households to maximize food and nutrition status with local available foods, while also striving to increase such resources. This requires a process of effectively mobilizing communities and shifting from a centralized to a more decentralized approach, with wider participation on the part of the community.

A number of activities that address problems of household food unavailability, food consumption and food absorption and the various forms of malnutrition are being undertaken by FAO/UNICEF/CARE/CRS/WFP in both urban and rural areas. An important focus is community empowerment, with appropriate support from the various governmental levels and civil society institutions. At the community level, targeted and coordinated efforts focusing on improving household food availability, fostering peoples participation and empowering women and marginal groups are needed to address local food and nutrition problems. Such efforts include: participatory appraisal and panning methods; expending and diversifying food consumption and ensuring availability at the local market; improving food preservation and storage; improving water supplies; expanding and diversifying income generating activities; improving nutrition education and training; and ensuring access to basic health care and care systems.

Table: 1 Selecting Research Methods and Developing Research Tools

Research Methods	Respondent	Research Tools
Market Survey	Local Green Grocer , Shopkeeper	Interview
Food Seasonality	Other influential people (Village leader), Social Worker, Change Agents	Participatory Rural Appraisal
24 hour Dietary Recall	Pregnant Mother	24 hour Dietary Recall Questionnaires
Observation	Pregnant Mother	Participatory Observation Method
Focus Group Discussions	Pregnant Mother Family Support System (Mother-in-law, Husband)	Focus Group Discussion topic Guides
Food Demonstration	Pregnant Mother Family Support System (Mother-in-law, Husband)	Tailored Recipe Guide

Selection of Area:
The areas under research work are rural tribal villages of Khunti district i.e previously it was under Ranchi district. In September, 2007 it became new Khunti district. The villages are Angrabari, Saradkela (Torpa block), Koinara, Jarakela (Rania block), Chamratoli, Goratoli (Murhu block), Chalmbartoti and Chalmbartoti (Khunti block). These villages are tribal populated area.

Sampling Procedure:
In selecting the sample, it was intended to ensure that significant aspects of the characteristics are represented in the sample is same in population. The multistage sampling technique was adapted. A four days training was conducted in four selected blocks by involving eight selected village community organization purposely. In first stage four block namely Torpa, Rania, Murhu and Khunti were selected randomly. In the second stage two villages from each of these four blocks were selected again randomly. In the third stage 20 tribal households from each villages were selected randomly, while in fourth stage 25 pregnant/lactating mothers from each villages in the age group of 18-45 years, with almost similar background having at least one child under two years were selected purposely. Out of one hundred mothers 50 pregnant mothers, constituted the sample of the study. Total sample size of 100 mothers, 50 are under control group and 50 are under experimental group.The data on maternal and young child feeding practices of *Munda* and *Oraon* was collected. Each mother was interviewed in two to three session. After the training the interviewer visited the selected houses in three phase. In first phase an assessment, evaluation and observation by Focus group discussions

[1] *Scientist KVK Dhanbad Birsa Agricultural University Ranchi Jharkhand
[2] Ex HOD dept of PG Home Science, Ranchi University, Ranchi Jharkhand
[3] Professor dept of PG Home Science, Ranchi University, Ranchi Jharkhand

of the present food consumption pattern. In second phase market survey, 24 hour diet recall, food seasonality by participatory appraisal method, food frequency were conducted and based on these nutritional assessment, observation of FGDs and local availability some recommendations were tailored and given to the pregnant/lactating mothers, family support system ie mother in law and husbands to improve the nutritional status of pregnant/lactating children under two years. Third phase was trial for improved practices and follow up to assess the actual utilization of the recommendations provided previously.

Result and Discussion:

The result obtained from the study is comparison of 24 hr dietary recall and food frequency data of the control group and experimental group was done for 50 pregnant, each four block of Khunti District.

Table: 2 Diet Recall of Pregnant Mother

. Food Group	Mean Intake(gm)		Range(gm)		Desirable level of consumption(gm)
	Ctrl(N=25)	Exp(N=25)	Ctrl(N=25)	Exp(N=25)	
Cereals	325	369	275 – 1005	250 – 946	470
Pulses	37	49	20 – 100	22 – 120	60
Animal Food	17.3	19.6	11 – 77	10 – 80	30
Milk		62*			150
Leafy Vegetable	49	34	15 – 130	13 – 131	50
Yellow Fruit or Vegetable	70	100*			50
Vitamin C rich food	14	16	20 – 45	28 – 50	50
Root vegetable (starchy)	123	93	55 – 200	55 – 264	50
Other Vegetable	104	112	50 – 145	70 – 150	60
Oil	3	6.1	2 – 21	2 – 20	40
Sugar	12	14.2	2 - 35	2 - 50	30

*Only one respondent consumed

Most of the pregnant mother,s foods have cereals and pulses that are lacking sugar, oil, milk products and animal foods. The quality of protein is not good. However the phenomenon of supplementary action of protein has made it possible to substantially improve the biological value of protein of diet. A cereal- pulse ratio 4:1 can achieve a biological value. Most vegetable food have protein that are lacking in one or more essential amino acids. The data are clearly indicative that the cereal to protein ratio ranging from 7-8: 1 is far short of ideal 4 : 1. it is well documented fact that if a diet is lacking in even one essential amino acid. it can not support growth satisfactorily. In experimental group this ratio has changed to 7: 1.

The bulk of the diet is made up of cereal although there was a wide variation in amount consumed. Respondents who had little variety of diet i.e. their meals consisted of only rice dal or rice and tuberous vegetables had the highest cereal consumption. t is also marked that if a diet contain some inhibitory material it cannot support growth. Other animal origin food such as milk and milk product, and fleshes are rarely consumed. Leafy vegetables are easily available at their surroundings are included in their daily diet rarely. However the experimental group succeed in increase the amount of food stuff in their diet. It is more important to mark that we have increased the minimum range quantity of food stuff. Meager amount visible fat is consumed i e 3gm in control and 6gm in experimental in a day can pose health problems due to lack of essential fatty acids and poor absorption of fat soluble vitamins.

Table: 3 Nutrient content Vs RDA

Nutrient	Mean Intake		Range		RDA
	Ctrl(N=25)	Exp(N=25)	Ctrl(N=25)	Exp(N=25)	
Energy (Kcals)	1998	2421	914 – 3327	1434 – 3404	2525
Protein (g)	47	58	27 – 78	31 – 85	65
Fat (g)	10	11.7	3 – 23	4 – 33	30
Iron (mg)	17	20	4 – 34	4 -40	38
Calcium (mg)	435	539	87 – 1008	115 – 1791	1000
Vitamin A (ug)	376	485	11 – 1443	13 – 1717	600
VitaminC(mg)	97	117	6 - 467	9 - 924	40

Table -3 showed there is increase in calorie intake, protein intake and very small increase in fat. Nutrient intake of most of the micronutrients like calcium, Vitamin A & Vitamin C is lower than recommended dietary allowances; however, there is some improvements in nutritional status of experimental group of pregnant mothers than control group.

Conclusion:

A strong IEC component that can relate pregnant mothers diet to her Childs well being as well as her own capacity to feed are required. This emphasis the need to explain to mothers the method and importance of breast feeding as a means

to care for the child and satiate his appetite rather than only as a child soother. The advantages of spending time to feed the child and follow the fixed times in a day.

References:

[1].District level Health Survey-3, 2007-8, under Reproductive and Child Health Project, IIPS Mumbai
[2].AED,LINKAGES, CRS – Lucknow, 2004, Trial for improved Practices and Formative Research Report in BCC Project.
[3].Expert group of Indian Council of Medical Research, 2001
[4].Gopalan C, Ramashastri B.V. and Balasubramanuiam S.C 2001 Nutritive Value of Indian Foods National Institute of Nutrition ICMR, Hyderabad
[5].National Family Health Survey 2000, Report
[6].National Diet and Nutrition Survey 2000, British Nutrition Foundation