Assessment of Nutritional Knowledge of Anganwadi Workers

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Abstract

Nutrition is a core pillar of human development and concrete, large-scale programming not only can reduce the burden of undernutrition and deprivation in countries but also can advance the progress of nations. ICDS scheme is the world's largest programme to combat malnutrition.The anganwadi worker is the most important functionary of the ICDS scheme.

The present study was conducted in Ajmer and Udaipur district of Rajasthan. A sample of 60 Anganwadi workers from four anganwadi workers training centers were taken for the purpose of study. The Anganwadi workers had 46.84 per cent knowledge of overall nutrition. The Anganwadi workers had highest knowledge about nutrition for vulnerable groups (48.40%) followed by basic nutrition (46.23%) and growth monitoring (43%).

Introduction

ICDS Scheme represents one of the world's largest and most unique programmes for early childhood development. ICDS aims to provide nutrition to most vulnerable sections of society viz. children in the age group 0-6 years, adolescent girls and pregnant and lactating mothers belonging to disadvantaged sections of society. ICDS is working since1975 but India still has the highest prevalence of child malnutrition. It shows that the programme is not successful in improving the nutritional status of children. It indicates need of improvement in the qualitative aspects of the ICDS programme.

The anganwadi worker is the most important functionary of the ICDS scheme. The anganwadi worker is a community based front line worker of the ICDS programme. She plays a crucial role in promoting child growth and development. She is also an agent of social change, mobilizing community support for better care of young children.ICDS also provides job training and refresher training to the anganwadi workers to enhance or improve their knowledge, at training centers. Job training is given to AWWs (Anganwadi workers) after they are appointed to implement the programme. Job training course of AWWs (Anganwadi workers) is conducted for the duration of 26 working days. Emphasis on preventive approaches to malnutrition is among one of the key element of job training syllabus. Whereas the refresher training is organized approximately after one and half to two years after the job courses has been provided.

The duration of this course for AWWs is 5 working days. This training is offered to update and refresh knowledge of functionaries. Refresher training usually deals with new information and new methods, as well as review of older materials. Major nutritional aspects included in the training are malnutrition in women and children, micronutrient deficiencies, growth monitoring, identification of children at risk, ideal food for infant and young children, breast feeding ,weaning and supplementary food , need for special nutrition for the children in the age group of 2-6 years age. This course helps the functionaries in bridging the learning gaps.

Although much of the researches have been done on the nutritional status of the beneficiaries of ICDS, evaluation of nutrition and health services rendered by anganwadi centers but very less focus has been shifted over to nutritional knowledge of the anganwadi workers, who are actually the main resource person of the programme and whose

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knowledge and skills do have a direct impact on the implementation of the programme and health of the people.As the anganwadi workers play an important role due to their close and continuous contact with the people of community, especially the children and women, so there is an utmost need to assess the level of nutritional knowledge in anganwadi workers. Thus, the present study has been taken up with the main objective of assessing the nutritional knowledge of anganwadi workers.

Methodology

There are total 21 Anganwadi training centers (AWTCs) in Rajasthan state. The present study was conducted in the purposively selected Ajmer and Udaipur district of Rajasthan as the researcher is well acquainted with the study area.There are four and three AWTCs in Ajmer and Udaipur district respectively, out of which 2 AWTCs were selected from each district for the study purpose based on feasibility and level of cooperation ensured by them.

From the selected AWTCs a sample of 60 Anganwadi workers was selected randomly in such a manner that numbers of Anganwadi workers from each AWTC were equal. Self made research tool was used for the data collection. Tool consisted two section i.e. Performa for background information and questionnaire. A Questionnaire consisting of 50 items, derived from Anganwadiworkers training syllabus was constructed. These items were carefully scrutinized by a team of experts. The concepts of nutrition are given during training are below:

1. Situation of malnutrition in women and children
2. Micronutrient deficiencies
3. Need and importance of growth monitoring of children right from birth
4. Growth monitoring of children in the age group of 0-3 and 3-6 years.
5. Identification of children in danger.
6. Tool and techniques of growth monitoring: Growth chart, weighing machine, basket.
7. Five aspect of growth monitoring-calculation of age of child, weighing of child, marking on growth chart, interpretation of growth curve, giving advice to the parents.
8. Ideal food for infant and young children- definition and importance.
9. National guidelines on nutrition for women and children.
10. Breast feeding: early initiation, colostrum feeding, exclusive breast feeding for six months.
11. Dangers of introducing weaning food before 6 month.
12. Production of breast milk and its flow.
13. Supplementary foods –need and types.
14. Guidelines for supplementary foods.
15. Need for special nutrition for the children in the age group of 2-6 years age.

The questionnaire was divided into three parts. First part was consisting of questions regarding basic nutrition. In the second part knowledge was assessed regarding nutrition for vulnerable groups. Third part

included questions regarding growth monitoring of oung children. The details are given below :

1. Basic nutrition: basic nutrition included balanced diet, sources and function of macro and micro-nutrients, nutrient deficiency disorders, appropriate diet during deficiencies, nutrient rich recipes, calorie value of food items, identification of macro and micro-nutrients.
2. Nutrition for vulnerable groups: vulnerable groups are the pregnant, lactating mothers, adolescents, infant and young children. This part had questions regarding pregnancy, lactation, nutrient need in pregnancy, gain in body weight during gestational period,cause of hypertension in pregnancy, initiation of breast feeding, deficient nutrients in breast milk, problems of bottle feeding, lactogogues,growth pattern of infant, eating disorders in adolescence, iron supplements, weaning and supplementation, and nutritional care of the child.
3. Growth monitoring: This section included questions regarding method of growth monitoring, steps in growth monitoring, correct weighing of the child, interpretation of growth curve etc.Eachof multiple choice questions had three options. Among three options only one was the correct answer. For each correct answer one mark was given and nutritional knowledge was assessed accordingly.The AWWs were contacted at AWTCs to collect information about their knowledge and background prior to start refresher training. After establishing rapport with respondents, purpose of study was explained to them. Questionnaire was distributed to the selected subjects and was explained thoroughly by the researcher.

Result and Discussion

Findings of the study are as follows

General information

Nearly half of the respondents (46.67%) were belonging to the age group of 31-40 years. More than half of the AWWs (58.33%) had education below 12th class. Nearly half of the AWWs (46.67%) had more than 10 years of experience in the service. All the AWWs (100%) attended job training of 26 working days once in their service period. Majority of AWWs (68.33%) had completed up to 2 refresher trainings. All the AWWs (100%) maintain growth chart in AWC. Majority of AWWs i.e.65 per cent provides nutrition education once in a week. All the AWWs complained about work load which is the major problem mentioned by AWWs in dissemination of nutrition messages. An AWW receive refresher training with an average interval of 5.2 years.

Knowledge of Anganwadi Workers in Different Areas of Nutrition

The effective outcome of the nutrition services rendered through the Anganwadi centers (AWCs) depends on the knowledge of the anganwadi workers (AWWs) regarding nutrition. A sound knowledge of the AWWs strengthens their skills and raises their capabilities to identify the children earliest

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moving towards malnutrition with the help of regular growth monitoring so as to take appropriate and early corrective action for further departure from good health. It also helps them as a teaching tool for empowering the mothers for preventive actions and better nutrition care of their children. Therefore, attempt has been made to assess knowledge of AWWs about nutrition.Major areas of nutrition included in the study were as follows:

1. Basic nutrition
2. Nutrition for vulnerable groups
3. Growth monitoring

It is evident from Fig.1 that AWWs had highest knowledge of nutrition for vulnerable groups (48.40%) followed by basic nutrition (46.23%) and then growth monitoring (43%). However AWWs have average knowledge of all three aspects of nutrition.The findings are supported by Parikh and Sharma (2011) concluded that overall knowledge about community based child feeding practices was average amongst AWWs with an average score of 40 per cent.

Knowledge of Anganwadi Workers Related To Basic Nutrition

Good nutrition is an important part of leading a healthy lifestyle. Good nutrition combined with physical activity can help to reach and maintain a healthy weight; reduce your risk of chronic diseases. Basic nutrition covers balanced diet, macro-nutrients and micronutrients, nutrients deficiencies, sources and functions of nutrients, diet during malnutrition etc. Table1reveals none of AWW falls into the excellent category of knowledge of basic nutrition. More than One third AWW fall into the poor category of knowledge of basic nutrition (Mean score =6.9). Nearly one fourth of AWW fall into the good category of knowledge of basic nutrition (Mean score=14.21). 41.67 per cent AWWs fall into the average category of knowledge of basic nutrition (Mean score=11.76). The overall mean score among AWWs about knowledge of basic nutrition was found to be 10.63.

Findings of the study are supported by Parikh and Sharma (2011) concluded that overall knowledge about community based child feeding practices was average amongst AWWs.

Understanding of Anganwadi Workers About Nutrition For Vulnerable Groups

The requirement of the body for the various nutrients depend on age, sex, physical work and other physiological conditions therefore changing needs for different groups. Pregnancy, lactation, infancy, early childhood and adolescents are periods of rapid physical and cognitive development that require higher nutrient requirement than other stages of life. During pregnancy additional energy is needed to support the growth of the foetus, placenta, and maternal tissues andincreased metabolic rate,similarly in lactation for encouraging optimum secretion of milk.There is a critical window of opportunity to prevent undernutrition by taking care of nutrition of children in the first two years of life, girls during adolescence, and mother during pregnancy and

lactation- when proven nutrition intervention offer children the best chance to survive and reach optimal growth and development.

It is evident from Table 2 that only 1.66 per cent of AWWs were excellent at nutrition for vulnerable groups with mean score of 17. Nearly half of the AWWs (46.67%) fall into the average category of knowledge regarding nutrition for vulnerable groups, 26.67 per cent of AWWs were good, and 25 per cent of AWWs were poor at knowledge of nutrition for vulnerable groups with the mean score of 6.

Knowledge of Anganwadi Workers Regarding Growth Monitoring

Human growth is very fast in formative years, particularly from birth to five years. Health and medical experts therefore plead for particular care in infancy and early childhood that also is the reason why children of this age group have been set as main target group of ICDS. One of the major services provided by ICDS includes supplementary nutrition and health check-ups. Onset of malnutrition, anaemia and most of the diseases can be detected if the growth is monitored regularly.

Growth monitoring involves following changes in a child's physical development, by regular measurement of weight, and sometimes of length. Routine monitoring of the weight of infants and young children is intended to identify thosewhose growth pattern deviates from the norm. This group represents individuals whohave an increased risk of poor growth due to either pathology or sub-optimal feeding (Wright, 2000).Growth Monitoring and nutrition surveillance are two important activities that are undertaken by AWWs.

All the AWWs (100%) maintain growth chart. It is evident from Table 3 that 16.66 per cent of AWWs were excellent, 21.67 per cent of AWWs were good, 35 per cent of AWWs were average, and 26.67 per cent of AWWs were poor at knowledge of growth monitoring. Mean score of AWWs about the knowledge of growth monitoring is found to be 2.15(MPS 43).

The findings are supported by Bhasin et al. (1995) that AWWs had inadequate knowledge on growth monitoring. They highlight the need of continued education of AWWs on various aspects of growth monitoring.

Conclusions

Knowledge of nutrition among AWWs helps in effectively achieving the objective of the ICDS scheme and should be considered important for the success of ICDS scheme.From the present study it can be inferred that anganwadi workers have inadequate knowledge about overall nutrition. They had highest knowledge about nutrition for vulnerable groups followed by basic nutrition and least on growth monitoring.Although job and refresher trainings are provided to all the AWWs and the content was found to be up to the mark, But the same is not being reflected in the knowledge assessment score of AWWs.Knowledge of Anganwadi workers was especially deficient in the aspect of micronutrient

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deficiencies. It indicates the need for improvement in nutritional knowledge of Anganwadi workers.

Therefore efforts should be made to enhance knowledge of AWWs regarding nutrition for vulnerable groups which will be helping in the eradication of malnutrition in communities, in long run. Thus, it is recommendedthat the knowledge and efficiency of AWWs regarding nutrition should be enhanced through frequent trainings and on-the- spot demonstrations.Refresher courses for AWWs should be organized once a year.CDPOs, supervisors, MOs and multipurpose workers should guide AWWs and help them to recapitulate their nutrition knowledge. AWWs should be provided with the timely supply of educational material. There is a need of timely completion of trainings by AWWS. Evaluation of trainings and knowledge of AWWs regarding nutrition should be conducted regularly.

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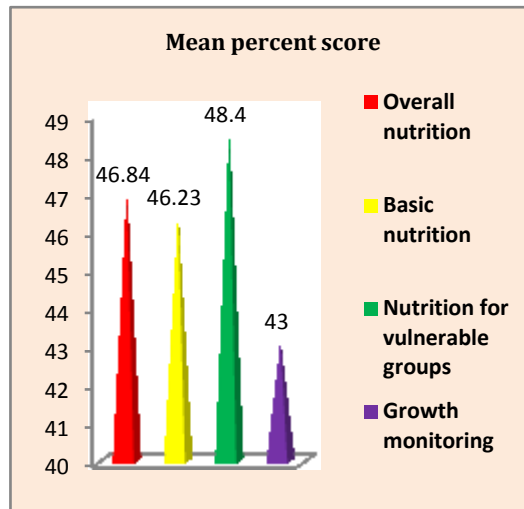
Fig.1: Knowledge of Anganwadi Workers in Different Areas of Nutrition

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Table1: Mean ±SD (SE) and Percentage Distribution of Respondents By Their Knowledge Regarding Basic Nutrition   N=60

S.N.	Categories	Mean Percent score	Mean score (Maximumscore=23)	Obtained Score range	Frequency	Percentage
1	Excellent	-	-	-	0	0
2	Good	61.78±2.51 (0.67)	14.21±0.58(0.15)	14-16	14	23.33
3	Average	51.13±6.01 (1.08)	11.76±0.93(0.19)	9-13	25	41.67
4	Poor	30.00±13.99 (3.59)	6.90±2.26(0.49)	1-8	21	35.00
	Total	46.23±14.36 (1.85)	10.63±3.27 (0.42)	-	60	100

Table 2:Mean ±SD (SE) and Percentage Distribution of Respondents By Their Knowledge Pertaining To Nutrition For Vulnerable Groups   N=60

S.N.	Categories	Mean percent score	Mean score (Maximum core=22)	Obtained Score range	Frequency	Percentage
1	Excellent	77.27±0.00 (0.00)	17.00±0.00 (0.00)	17	1	1.66
2	Good	65.64±4.97 (1.24)	14.44±1.09 (0.27)	13-16	16	26.67
3	Average	48.86±5.64 (0.89)	10.75±1.27 (0.24)	9-12	28	46.67
4	Poor	27.27±9.51 (2.37)	6.00±2.10 (0.54)	1-8	15	25.00
	Total	48.40±15.90 (2.05)	10.65±3.49 (0.45)	-	60	100

Table 3 : Mean ±SD (SE) And Percentage Distribution of Respondents By Their Knowledge of Growth Monitoring   N=60

S.N.	Categories	Mean percent score	Mean score (Maximum core=5)	Obtained score range	Frequency	Percentage
1	Excellent	84±8.81(2.93)	4.20±0.42(0.16)	4-5	10	16.66
2	Good	60±0.00 (0.00)	3.00±0.00(0.00)	3	13	21.67
3	Average	40±0.00 (0.00)	2.00±0.00(0.00)	2	21	35.00
4	Poor	16.2±8.00 (2.00)	0.81±0.40 (0.10)	0-1	16	26.67
	Total	43±24.65(3.18)	2.15±1.23(0.16)		60	100