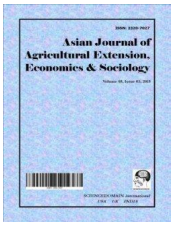

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To Evaluate the Intervention being Provided by AWCs Regarding Breastfeeding, Weaning and Child Diet in District Budgam of Kashmir Region (J&K) (Based on Beneficiary Responses)

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Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

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ABSTRACT

This study was undertaken to assess a feedback regarding the intervention being provided by Integrated Child Development Services (ICDS) in District Budgam. The study was conducted in 60 Anganwadi Centers (AWCs) and the beneficiaries included three registered groups viz., Pregnant Women (PW), Nursing Mothers (NM), and mothers of child beneficiaries (MCB) having children in the age group 0-3 years - 4 beneficiaries were selected from each AWC. Since India's 66% of the total population comprises of mother and children who are also the major consumers of health services hence they are the "priority," "special risk" and "vulnerable group." and therefore specific programmes for enhancing maternal and child health have been in place since the early fifties in India. These AWCs serve the purpose and are supposed to provide pre-school education on one hand and breaking vicious cycle of malnutrition, morbidity and mortality on the other hand. By

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educating women beneficiaries and also providing supplementary nutrition. Keeping in view the above factors and also to evaluate the intervention being provided by Anganwadi centers this study was planned and designed accordingly. Results obtained indicate that inadequate intervention is being provided regarding most of the aspects of breastfeeding with 86% denying the intervention regarding initiation of breastfeeding and 96% said no awareness regarding frequency of breastfeeding is provided in AWCs and 97% reporting no intervention regarding importance of balanced diet for children, although some of the blocks are better in providing information regarding some aspects while as others are lacking the ability to improve the knowledge of their beneficiaries regarding various parameters under study, which needs to be further taken care of through, advanced interventions by involving Anganwadi centres and medical department for the safety and health of our children. All the results were obtained by using Chi-square analysis and by comparing the responses of beneficiaries and AWWs (Anganwadi workers) across the blocks.

Keywords: Budgam; breastfeeding; weaning; supplementary foods; beneficiaries.

1. INTRODUCTION

Under nutrition in children remains a major cause of disability and mortality, ranked as the top cause of global burden of `disease and underlying 53% of deaths in children under five years. [1,2]. Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential [3]. It has been recognized worldwide that breastfeeding is beneficial for both the mother and child, as breast milk is considered the best source of nutrition for an infant [4]. The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or beyond [5]. Apart from this growth and development of any country is reflected by the growth and development of its children. Appropriate feeding is important in improving nutrition and child survival. Documentation of knowledge of caregiver on infant feeding is meager in India particularly in Kashmir. Surveys carried out in different parts of India show that the diet and nutrition of a large majority of the people are inadequate in several aspects. Consequently, varying types of nutritional deficiencies result. Today malnutrition is the most debilitating health problem affecting millions of children. Malnutrition is not a pathological condition due to the deficiency of a single nutrient or calories, but a consequence of several interacting factors [6]. Timely complementary feeding is an important and also a part of growth and developmental process in every child, which has an impact on their future health. Complementary feeding also marks the beginning of the child developing some degree of independence. It should include foods which are adequate in nutrition, appropriate inconsistency, given in sufficient quantity and hygienic. According to the WHO guidelines, complementary feeding should be started at 6 months of age along with breastfeeding up to 2 years or more.[7]. Inappropriate and inadequate infant and young child–feeding practices have been identified as a major cause of health problems among children in rural areas. When a child is not being breastfed properly due to certain reasons it becomes necessary to feed a child with supplementary milk. Similarly, it is also important that the complementary feeding is started at right time for an infant's rapid building of body muscles and other tissues. It has been also observed that immediate causes of children's malnutrition can be insufficient dietary intake which may sometimes not be due to lack of availability of food stuff, but also due to lack of knowledge of mothers related to early complementary feeding, delayed introduction of complementary foods or sometimes inadequate or low quality diet. In India despite praiseworthy advances in economic prosperity and in the field of medical therapeutics under nutrition in children happens to be an important public health problem. It is estimated around 55 million, or 1/3 of worlds underweight children live in India [8]. Nutrition and Health Education, which is an essential and important component of intervention being provided by AWCs where the mothers are educated and informed to cater the nutrition and health, needs of their children. This is imparted through counseling sessions, home visits and demonstration of preparing locally available nutritive foods [9]. Though dietary advice is an important part of education to the mothers a review shows that advice given is nonspecific and is not different from the advice was given to well nourish children [10]. Effective utilization of knowledge and skills gained from health and nutrition education is, therefore,

expected to improve the health and nutritional status of children through improved knowledge and care practices. However, there are limited data on the impact of nutrition education, especially in women who have not received formal education. Furthermore, supplementary feeding, which is provided to children in AWCs, is defined as provision of food by an outside entity to a child's family, ultimately enhancing child's nutrient intake. Supplementary foods can improve the nutritional status of malnourished children [11]. By providing Supplementary feeding, the ICDS attempts to bridge the caloric gap between the national recommended and average intake of children. [12] keeping in view all these components this study was undertaken to assess and evaluate the extent of intervention being provided by AWCs with an objective to assess and evaluate the intervention being provided by AWCs regarding breastfeeding, weaning and child diet and also to compare the assessment across the four blocks of district Budgam (Blocks Nagam, Chadoora, Budgam and B.K. Pora).

2. METHODOLOGY

Kashmir region has been selected for the study with the view that, Kashmir has been affected by armed conflict since 1990 and constant tension in the territory has its direct manifestation on the most vulnerable group of population i.e., women and children. Budgam from Kashmir has been selected for this study, which is having eight blocks and 593 villages. The total population of the district is 7.35 lacs with the sex ratio of 830/1000 and literacy rate 57.98% (2011 census). Out of eight blocks, the sample was selected from four blocks (Budgam, Nagam, Chadoora & B.K.Pora) in a representative manner. In order to draw the desired sample, initially, the lottery method was used for selection of the AWCs by obtaining a list of AWCs from each ICDS project officer of the selected block. There were more than 150 AWCs in each block. Out of the total number of AWCs in each block under study only 15 centers were selected. Four blocks were purposively selected out of eight blocks of the district Budgam as per the accessibility and the number of ICDS (Integrated Child Development Service Scheme) centers in the area. 240 sample beneficiaries were selected from 60 AWCs from four blocks of district Budgam, through random sampling technique. Including 4 beneficiaries from each sample AWC (Two MCB, One PW and One NM). Only 5 mothers of child beneficiaries (MCB), based on their willingness to participate in the study, were selected from the each AWC from the attendance register maintained for this group of beneficiaries. Only those mothers having children in the age group 6 month-3years of age and registered beneficiaries of the selected AWC were selected for the study. Percentages and Chi-square were calculated and computed. Data was scrutinized and analyzed, keeping in view the objective and was presented in suitable tables. Content analysis of data was also done. All ethical issues were cleared before data collection.

3. RESULTS AND DISCUSSION

3.1 Intervention Regarding Breastfeeding

Breastfeeding is one of the most important determinants of child survival, and prevention of early childhood infections. The beneficial effects of breastfeeding depend on breastfeeding initiation, its duration and the age at which the breastfed child is weaned. In rural areas auxiliary nurse midwives, Anganwadi workers, health workers also influence the breastfeeding practices/knowledge of women beneficiaries.

In this context data from Table (1) reveal that majority (69.5%) of women beneficiaries reported to receive intervention regarding advantages of breastfeeding at AWCs by AWWs. These beneficiaries were made aware that breastfeeding can make their child healthy by giving them protection against infection and will also keep mothers healthy. It will also help to develop a strong relation between mother and child. It was observed that although all the blocks were providing awareness related to this aspect of breastfeeding, but a large proportion (98.3%) of sample women from B.K.Pora were receiving better awareness related to this aspect of breastfeeding in comparison to other blocks under study. However, 30.4% of all beneficiaries said that no such type of intervention is being provided at the AWCs. A highly significant difference in responses among women beneficiaries across the blocks is observed ($p < 0.01$).

As far as intervention related to initiation of breastfeeding (1) is concerned only 13.3% of women beneficiaries informed to receive occasional awareness by the AWWs either by giving lectures or sometimes demonstrating with the help of charts, showing how early initiation of breastfeeding can keep a child healthy. However,

majority reported receiving no such awareness related to this aspect of breastfeeding. Across the blocks, 26.6% sample beneficiaries from B.K.Pora informed to receive awareness related to initiation of breastfeeding. A highly significant difference is statistically observed in responses among the beneficiaries across the blocks ($p<0.01$).

It was quite unfortunate to see that a large majority (62%) of the sample beneficiaries from selected AWCs of the blocks receive no intervention regarding feeding of colostrum (Table 1 c) but surprisingly the percentage of women beneficiaries receiving intervention related to this aspect of breastfeeding was higher (68.3%) in block Budgam and B. K. Pora (55%). However, a highly significant difference related to this aspect of the sample blocks of district Budgam is seen ($p<0.01$).

In context to intervention related to duration of breastfeeding (Table 1) it was reported by a large majority (86.6%) of women beneficiaries of the concerned AWCs that intervention is being provided by the AWWs and even sometimes on village health days or sometimes during a visit conducted by some health personnel of the concerned PHC. As reported by women beneficiaries AWWs advised them to breastfeed their child at least for six months and at the most for two years if the circumstances allow (if there is not another pregnancy or problem with mother). All the sample blocks were providing intervention related to duration of breastfeeding. Chi-square analysis shows no significant difference in responses related to initiation of breastfeeding across the blocks ($p>0.05$).

However, no significant intervention related to feeding frequency (1) was reported by the beneficiaries, because of the fact that feeding frequency is mostly based on demand of a child. No significant difference was statistically observed across the blocks ($p>0.05$).

3.2 Intervention Received by Women Beneficiaries Regarding Weaning and Child's Diet

Under five children suffer various nutritional problems particularly in rural and slum areas. It is necessary to provide intervention to reduce the incidence of malnutrition for the improvement of health status of children. In this regard, mother's proper knowledge on weaning food and proper time of weaning may play vital role to enhance health status of children.

It is observed from the Table 2. that 81.2% of Kashmir women beneficiaries from all the selected AWCs of district Budgam reported to receive intervention related to proper timing of introduction of weaning foods from their concerned AWCs. The beneficiaries also reported that most of the awareness was provided during home visits as there is hardly any counseling done at AWCs. Among the blocks a large majority of sample beneficiaries (90%) from block Budgam reported to receive intervention related to proper timing of weaning at their centre by the AWWs suggesting them to start weaning at about six months of age with locally available or the traditional semi-solid foods. Intervention related to this aspect was quite necessary particularly for those who were first time pregnant. A statistically significant difference in responses related to this aspect of intervention among the beneficiaries across all the blocks is observed ($p<0.01$).

With respect to intervention pertaining to selection of weaning foods (2) majority of women beneficiaries across all the blocks reported receiving no such awareness. Some of the beneficiaries said that during nutrition hour, sometimes AWWs suggest certain weaning foods, but no formal lecture or intervention is provided. However, it was observed that a good percentage (60%) of women beneficiaries from B.K.Pora received intervention and AWWs made them aware of the foods suitable for weaning. Statistically, a significant difference in responses of beneficiaries across the blocks was observed ($p>0.01$).

It is evident from data given in Table (2) that no intervention related to balanced diet for children is being provided at the AWCs. It is clear from the statements given by the sample beneficiaries that AWWs are not aware of balanced diet that should be provided to growing children, so no awareness can be expected from such AWCs. Only a very small percentage (6.6%) of women beneficiaries from B.K.Pora reported that AWWs sometimes provide suggestions regarding foods required for a growing child. Chisquare analysis shows a significant difference in responses across the blocks ($p<0.05$)

Table 1. Intervention regarding breastfeeding

Variables	Responses	Women beneficiaries										χ^2 Analysis
		B.K.Pora N=60		Budgam N=60		Nagam N=60		Chadoora N=60		All Beneficiaries N=240		
		f	%	f	%	f	%	f	%	F	%	
(a) Intervention about advantages of breastfeeding	Intervention provided	59	98.3	35	58.3	35	58.3	38	63.3	167	69.5	31.71_3^{**}
	Not provided	1	1.6	25	41.6	25	41.6	22	36.6	73	30.4	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(b) Awareness about initiation of Breastfeeding	Intervention provided	16	26.6	11	18.3	3	5.0	2	3.3	32	13.3	19.32_3^{**}
	Not provided	44	73.3	49	81.6	57	95.0	58	96.6	208	86.6	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(c) Intervention about Colostrum	Intervention provided	33	55.00	41	68.33	7	11.67	10	16.6	91	37.2	60.09_{3**}
	Not provided	27	45.0	19	31.6	53	88.3	50	83.3	149	62.0	
	Total	60	100.0	60	100.0	60	00.0	60	100.0	240	100.0	
(d) Intervention about duration of breastfeeding	Intervention provided	32	86.6	50	83.3	51	85.00	55	91.6	208	86.6	2.01_3
	Not provided	8	13.3	10	16.6	9	15.00	5	8.3	32	13.3	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(e) Awareness about feeding frequency	Awareness provided	2	3.3	4	6.6	2	3.3	1	1.6	9	3.7	2.19_3
	Not provided	58	96.6	56	93.3	58	96.6	59	98.3	231	96.2	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	

*df in subscripts of χ^2 values * denotes significant at 0.05 level Column percentage **denotes significant at 0.01 level*

Table 2. Intervention received by women beneficiaries regarding weaning and child diet

		Women Beneficiaries										
Aspects of Intervention provided	**Responses**	**B.K. Pora N=60**		**Budgam N=60**		**Nagam N=60**		**Chadoora N=60**		**All beneficiaries N=240**		**χ^2 Analysis**
		f	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	
(a)Timing of introduction of weaning foods	Intervention provided	51	85.0	54	90.0	52	86.6	38	63.3	195	81.2	17.36_3^{**}
	Not provided	9	15.0	6	10.0	8	13.3	22	36.6	45	18.7	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(b) Selection of weaning foods	Intervention provided	36	60.0	29	48.3	28	46.6	17	28.3	110	45.8	12.42_3^{**}
	Not provided	24	40.0	31	51.6	32	53.3	43	71.6	130	54.1	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(c) Balanced diet for a child	Intervention provided	4	6.6	1	1.6	0	0	0	0	5	2.0	8.78_3^{*}
	Not provided	56	93.3	59	98.3	60	100.0	60	100.0	235	97.9	
	Total	60	100.0	60	100.0	60	100.0	60	100.0	240	100.0	
(d) Nutritious foods for children	Intervention provided	8	13.3	6	10.00	10	16.6	11	18.3	35	14.5	1.97_3
	Not provided	52	86.6	54	90.0	50	83.3	49	81.6	205	85.4	
	Total	60	100.0	60	100.	60	100.0	60	100.0	240	100.0	

*Column percentage df in subscripts of χ^2 values * denotes significant at 0.05 level **denotes significant at 0.01 level*

Table 2 further shows that only 14.5% of Kashmiri beneficiaries across all the blocks reported being made aware of nutritious foods (milk, eggs, fruits, meat etc) necessary for proper growth of their children, although this was not a regular activity, occasionally such suggestions were provided. No significant difference across the blocks is statistically seen ($p>0.05$).

4. CONCLUSION

Based on the results obtained by the researcher it can be concluded that the Anganwadi centres are providing inadequate intervention regarding breastfeeding, complementary feeding and importance of proper diet for children. There are many aspects of breastfeeding and weaning where the knowledge is lacking and in which respondents need to be made aware. Apart from this, misconception, customs and misleading beliefs regarding breastfeeding practices are still prevalent in this community, which needs to be addressed. It was also observed that the respondent's knowledge regarding complementary feeding time is inadequate and practices are inappropriate. Majority of them are not aware of the current recommendations and proper way of doing it. Correct information and guidelines about complementary feeding are not reaching the target population as a result the mean age of complementary feeding is either delayed or sometimes started too early due to improper information. Hence it is essential, that accurate information and intervention should be provided to mothers and caregivers about appropriate timing of initiating complementary feeding, complementary feeding foods, preparation and practices to prevent malnutrition and improve the health status of the children. To make the sample women aware of these misconceptions, in every village AWCs are established but results show that the purpose is not being served appropriately. Moreover, no awareness regarding selection of nutritious foods, balanced diet for children is being provided to women beneficiaries at Anganwadi centres. As such to fill this identified gap all ICDS centers need to involve their women beneficiaries in NHED (Nutrition and Health Education Day), VHND (Village Health and Nutrition Day) and health meeting to make them aware regarding various health and nutrition issues of their children so that they can discuss everything and interact as per need with the team meant for the purpose. Furthermore, there is a need for improvement in methods of intervention. The method of intervention should include visual aids with proper demonstration, which can have lasting impact on the minds of beneficiaries to follow the advice.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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