

SHORT ARTICLE

A study of knowledge, attitude and beliefs of Anganwari workers regarding infant and young child feeding practicesAnjali Mahajan¹ Kanica Kaushal²¹Assistant Professor, ²Resident, Department of Community Medicine, IGMC Shimla,

Abstract	Introduction	Methodology	Results	Conclusion	References	Citation	Tables / Figures
--------------------------	------------------------------	-----------------------------	-------------------------	----------------------------	----------------------------	--------------------------	----------------------------------

Corresponding Author

Address for Correspondence: Kanica Kaushal, Department of Community Medicine, IGMC Shimla
E Mail ID: kanicak8@gmail.com

Citation

Mahajan A, Kaushal K. A study of knowledge, attitude and beliefs of anganwari workers regarding infant and young child feeding practices. Indian J Comm Health. 2014;26, Suppl S2:343-347

Source of Funding : Nil **Conflict of Interest:** None declared

Abstract

Introduction: Malnutrition permeates all aspects of health, growth, cognition, motor and social development of young children. Anganwari Worker (AWW) is a community based frontline honorary worker of the ICDS Programme. She is an agent of social change and capable of mobilizing community support for promotion of Infant and Young Child Feeding (IYCF) practices, thereby helping to curb child malnutrition to a large extent. **Rationale:** The AWW is the key functionary who can appropriately guide the mothers regarding appropriate IYCF practices in the best possible way, provided she herself is well equipped with adequate knowledge. **OBJECTIVE:** To assess the knowledge, attitude and beliefs of Anganwari workers regarding IYCF practices. **Material & Methods:** 100 AWWs were assessed for their knowledge, attitude and beliefs regarding IYCF practices. Both pre-test and post-test evaluations were done. **Results:** About 19% of the AWWs did not know the age up to which the child should be exclusively breastfed and 13% did not know about the age of introduction of complementary feeding. Only 47 % of the AWWs knew about the “feeding on demand” concept. More than 90% of AWWs believed that colostrum should be given to the baby. None of the AWWs knew about the quantitative additional calorie, protein and calcium requirements in lactating mothers. There was significant difference ($P<0.001$) between mean pre test scores (19.48 ± 1.98) and mean post-test knowledge scores (22.21 ± 0.93) of Anganwari workers. **Conclusion:** Repetitive practical orientation programmes would help in increasing the knowledge of AWWs and improving their skills for implementation of correct IYCF norms. Efficient, coordinated and well-targeted approaches can bring about positive changes in child under nutrition.

Key Words

Anganwari worker; breast feeding; IYCF practices; malnutrition.

Introduction

Malnutrition permeates all aspects of health, growth, cognition, motor and social development of young children in developing countries. More than 50% of deaths in these children can be attributed to malnutrition, most often in conjunction with serious infection. The Integrated Child Development Services (ICDS) scheme has its inception since 2nd October 1975 to remedy these defects & it is the foremost symbol of India's commitment to her children by breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality [1].

The National Family Health Survey (NFHS) – III shows 40.4% of children below three years of age are underweight, 16 percent are severely underweight, 45% are stunted, 22% are severely stunted in India. Nutritional Status of Children below Three Years of Age (2005-06) in Himachal Pradesh showed that 36.2 percent of children under 3 years who were underweight were stunted were 26.6% and wasted 18.8% [2]. These figures are an indicator of the poor infant feeding practices in early years of life. It has been very well demonstrated that the immunological and nutritional value of breast milk is unparallel in comparison to other alternatives of child feeding such as artificial milk, cow milk etc [3].

However the beneficial effects of the breast feeding depends on the age of initiation of breast feeding, duration of breast feeding and the age of child at which the complementary feeding is introduced. Breast feeding can positively influence the likelihood of child survival, can ensure birth spacing and help in curbing childhood infections like Acute respiratory illnesses, diarrhoea etc. [4]

Global strategy for Infant and Young Child Feeding (IYCF) based on the recommendations of World Health Organization conforms to the traditional Indian practice of exclusive breastfeeding for the first six months and continued breastfeeding up to the age of 2 years and beyond [5]. Overall (both breastfed and non breast fed infants) only 21 percent of children age 6-23 months are fed according to all three IYCF recommended practices [6]. The percentage of children under age five who were ever breastfed is almost universal in every state, with a slightly lower percentage in Uttaranchal (90 percent) and Himachal Pradesh (92.3 percent). In Himachal Pradesh, percentage who started breastfeeding within half an hour of birth, one hour of birth, within one day of birth were 44.1%, 45.4%, 77.6% respectively and 21.7% received a prelacteal feed [7].

The Anganwari Worker (AWW) is the frontline worker under the ICDS scheme who is supposed to educate the masses on various aspects of health and nutrition especially pregnant and lactating females, adolescent girls & children under six years of age. The breast feeding practices show a great variation between different communities across the world and further differ between urban and rural areas. These practices are largely influenced by the social, cultural, economic factors existing in the society and are further predisposed to the beliefs of the people. The Anganwari Worker (AWW) is the key functionary who can guide the mothers regarding appropriate IYCF practices in the best possible way, provided she herself is well equipped with adequate knowledge thereby helping to curb child malnutrition to a large extent.

Aims & Objectives

To assess the knowledge, attitude and beliefs of Anganwari workers regarding IYCF practices in the capital city of Himachal Pradesh, Shimla with a motive to enhance community based IYCF practices.

Material and Methods

This was a cross sectional educational interventional study conducted during the Breastfeeding week from 1st -7th August, 2014 for which several Anganwari workers gathered together at different locations in Shimla, Himachal Pradesh to celebrate the occasion. A hundred Anganwari workers were chosen by convenience sampling and a pre designed semi structured questionnaire was used as a study tool to obtain information about the knowledge, attitude and beliefs of Anganwari workers regarding IYCF practices. Prior consent was obtained from the study subjects to participate in the study.

The proforma consisting of 23 closed ended questions on IYCF practices was administered as a pre test questionnaire in local language (Hindi) which could be easily read and understood by all the Anganwari workers. It was ensured that they sat at a suitable distance to avoid any discussions amongst them. Every question was read out aloud so that they understood the question well and they were made to encircle the answers simultaneously. Later the Anganwari workers were sensitized regarding various aspects of breastfeeding by showing power point presentations & giving demonstrations. Thereafter post test was conducted using the same questionnaire immediately after the educational intervention to evaluate the improvement in the levels of their knowledge. A score of 1 was given for the correct answer thereby making a total of 23. A score of < 15 was considered as poor, 16-20 as satisfactory and >21 as good.

After obtaining the requisite data it was tabulated in the Microsoft excel worksheet and later transferred to SPSS statistical software version 17.0 for analysis. Percentages for various variables were used and paired sample t test was applied to assess the mean difference of pre and post test scores. P value of <.05 was considered significant.

Prior permission was taken from institute ethical committee to go ahead with the study. A written informed consent was taken from each participant after explaining the full purpose of the study in local language. Participants were fully assured regarding the confidentiality and anonymity of the information provided by them.

Results

In the present study, mean age of the Anganwari workers was 36.64±5.28 years. Average population catered by each Anganwari centre was 574.97 ± 476.725 with a range of 120 to 2700 thereby showing

huge variation in the population catered by AWCs in Shimla. The mean working experience of AWWs was 2.51+ 1.032 years. There was a significant difference ($P<0.001$; 95% CI 1.11-4.35) between mean pre test scores (19.48±1.99) and mean post test knowledge scores (22.21±0.91) of Anganwari workers.

[Table 1](#) shows the various indicators of knowledge of AWWs regarding IYCF practices.

[Table 2](#) shows attitudes & beliefs of AWWs regarding IYCF practices.

More than one reasons were found to be responsible by AWWs behind adoption of breastfeeding by mothers. The most common reasons were the breast milk being clean and hygienic for the baby (65) and its meeting the nutritional requirements of the infant in the first few months (56). All AWWs believed that breastfeeding is of many advantages to the child apart from feeding and more than 50 % knew all those advantages including its importance in early dentition, protection against diarrhoea and respiratory tract infections, raising I.Q. etc.

Discussion

At the grass-root level, delivery of various health services is ensured through the Anganwari Centre (AWC). Conducting home visits to provide counseling and guidance regarding Infant and young child feeding (IYCF) practices to pregnant and lactating women is one of the key job responsibilities of an AWW. She is supposed to encourage promotion of early initiation of breastfeeding, exclusive breastfeeding for six months, and introduction of complementary feeding after six months and to further ensure that age appropriate feeding is continued with breastfeeding at least till two years of age [8]. Hence the Anganwari workers need to have an adequate knowledge and be adept in IYCF practices so that she can percolate the same to the target beneficiaries of ICDS scheme i.e. pregnant and lactating mothers.

In our study after conducting the pre test it was observed that 2 AWWs were having poor knowledge, 31 had satisfactory knowledge and 67 had good knowledge about IYCF practices with a mean score of 19.48±1.99. After their sensitization regarding IYCF practices through interventional educational approach, it was found that just 2 AWWs had satisfactory knowledge and 98 AWWs had good knowledge with a mean score of 22.21±0.91. This difference in scores was found to be statistically significant ($t= -19.83, df=99, p<0.001$) ([Table 3](#)).

Various barriers hindering the adoption of breastfeeding by mothers as cited by AWWs in the present study were multiple. The most common reasons that AWWs gave for mothers not opting for the breastfeeding was their belief that it was not sufficient for the baby (49) followed by the belief that it leads to weight gain in mother (37) and that her breasts start to sag (31). Other reasons enumerated were that there was pressure from the family members(20) for giving cow's milk to the baby as it is thought to be better than human milk(8) and bottle feeding seems to be less time consuming (21). Similar study by Parikh et al. [9] concluded that overall knowledge and perceptions for promoting of community based CF practices was average amongst the ICDS AWWs with a percent score of 40%. The AWWs were aware of key IYCF practices, however the AWWs perceptions and knowledge with regard to the rationale applicable to the appropriate recommended CF practices being promoted was rather poor. Taksande et al. [10] studied the Knowledge and Attitudes of Anganwari Supervisor Workers about Infant (Breastfeeding and Complementary) Feeding in Gondia District of Maharashtra. All the supervisors had an accurate knowledge that breastfeeding should be started as early as possible, immediately after birth. 94.44% had proper knowledge that prelacteal feed should not be given as compared to 88% of AWWs in our study. 66.11% of the supervisors knew that breastfeeding should be given on-demand whereas in our study only 47% of the AWWs knew this concept. [8] The mean pre test score was 15.36 (SD 1.79), which had risen post-test to a mean of 17.16 (SD 1.59), and the calculated two-tailed P value suggested improvement in the post-workshop score, which was highly significant (P value < 0.000 ; 95% CI -2.46 to -1.14). Satpathy et al. [11] conducted a study of AWWs on their knowledge, attitude, and practice surveys on breastfeeding, and reported that an average knowledge regarding breastfeeding was adequate. Thakare et al. [12] shows that awareness about ICDS services increases with the increased level of education. They also noted that fewer honorariums with excessive work can be deleterious to efficiency to AWWs. In the present study 100% AWWs were not satisfied with the amount paid as honorarium to them in lieu of their work load.

Conclusion

There seems to be a noticeable gap between the overall knowledge and perceptions of AWWs regarding IYCF practices. As noticed in our study the educational intervention remarkably improved their overall knowledge and further helped to clarify their misconceptions. These findings highlight the need for continued sensitization workshops for all frontline health providers at the peripheral level.

Recommendation

Efficient, coordinated and well-targeted approaches can bring about positive changes in child under nutrition, morbidity and mortality of the child. To contribute to these outcomes, a well conceptualized inter linkage should be established which brings health, nutrition and education sectors to work together.

Relevance of the study

Repetitive practical orientation programmes would help in increasing the knowledge of AWWs and improving their skills for implementation of correct IYCF norms. This would bring about behaviour change in the community & would tantamount to minimize the damage caused by the vicious cycle of malnutrition & infection.

Authors Contribution

AM carried out the design, analysis and interpretation of data, and drafted & critically reviewed the manuscript. KK participated in the design of the study, data collection and drafted the manuscript. All authors read and approved the final manuscript.

Acknowledgement

Our sincere thanks to all AWWs, Supervisors for cooperation in conducting the study & Child development project officer for their support in conducting this study.

References

1. Nutrition- the basis of holistic development of children. [Internet]. Available from: www.atiwb.nic.in/index_htm_files/Nutrition.pdf. Last accessed on: 2014 Sep 20.
2. Malnutrition among Children in India. [Internet]. Available from: [poshan.nic.in/.../issue%20brief%20--%20Malnutrition%20final_NFHS%](http://poshan.nic.in/.../issue%20brief%20--%20Malnutrition%20final_NFHS%20). Last accessed on: 2014 Sep 20.
3. Breastfeeding. K. Park Textbook of preventive and social medicine 21st edition. Banarasidas Bhanot publishers. Pg.496-97.
4. Victoria CG, Smith PG, Vaughan JP, Nobre LC, Lombardi C, Teixeira Am et al. Evidence for protection against infant deaths from infectious diseases in Brazil. *Lancet* 1987;(2):319-322.]
5. World Health Organization. 2008. Indicators for assessing infant and young child feeding practices: Conclusions of a consensus meeting held 6-8 November 2007 in Washington, DC, USA. Geneva: World Health Organization. [5]
6. Arnold F, Parasuraman S, Arokiasamy P, Kothari M. Nutrition in India. Ministry of Health and Family Welfare Government of India; 2009 Aug. 34p. [6]
7. Nutrition and Anaemia. [Internet]. Available from: <http://motherchildnutrition.org/india/pdf/nfhs3/mcn-NFHS-3-Chapter-10-Nutrition-and-Anaemia.pdf>. Last accessed on: 2014 Sep 20.[7]
8. Role Delineation for Frontline Workers. [Internet] Available from: http://www.wcd.nic.in/order20122013/Role_Delination_f or_ ICDS_and_Health_ Frontline_FunctionariesFinal.pdf. Last accessed on: 2014 Sep 20.
9. Parikh P, Sharma K. Knowledge and perceptions of ICDS Anganwari Workers with reference to promotion of community based complementary feeding practices in semi tribal Gujarat. *NJCM* 2011;2(3):457-464.
10. Taksande A, Tiwari S, Kuthe A. The knowledge and the attitudes of the anganwadi supervisor workers on infant (breastfeeding and complementary) feeding in the Gondia district. *Indian J Community Med.* 2009 July; 34(3): 249.
11. Satpathy R, Das DB, Nanda NC. Knowledge of Anganwari workers about breastfeeding [Letter]. *Indian Pediatr* 1995;32:933.
12. Thakare, MM, Kuril BM, Doibale MK, Goel NK.2011. Knowledge of Anganwari Workers and their Problems in an Urban ICDS Block, *Journal of Medical College Chandigarh,* 1(1): 15-19

Tables

TABLE 1 KNOWLEDGE ABOUT IYCF PRACTICES AMONG ANGANWARI WORKERS (N=100)

	KNOWLEDGE	DESIRED ANSWER	RESPONSE	
			CORRECT No.(%)	INCORRECT No.(%)
1	Age up to which the child should be exclusively breastfed	6 months	81	19
2	Frequency of breastfeeding	On demand	47	53
3	Age of introduction of complementary feeding	6 months	87	13
4	Age up to which the child should receive breast milk even if complementary feeding is started	2 years	87	13

5	Mother's milk is better for baby than cow's milk	Yes	98	2
6	Water should be given in between the breast feeds	No	85	15
7	Breastfeeding reduce episodes of diarrhoea & RTIs	Yes	79	21
8	Pre lacteal feeds should be given to the baby before initiating breastfeeding	No	88	12
9	Pregnant mother should continue breastfeeding the infant	Yes	35	65
10	Breastfeeding should be continued when the child is having fever or diarrhoea	Yes	93	7
11	If the sick child is given medications orally by drops or suspension, it still counts in exclusively breastfeeding	Yes	65	35

TABLE 2 ATTITUDES & BELIEFS REGARDING IYCF PRACTICES (N=100)

ATTITUDES AND BELIEFS		DESIRED RESPONSE	RESPONSE	
			CORRECT NO. (%)	INCORRECT NO. (%)
1	Colostrum should be given to the baby	Yes	96	4
2	Breastfeeding is of advantage to the mother as well	Yes	93	7
3	Should you motivate the lactating mothers for using contraception	Yes	85	15
4	Should you motivate the lactating mothers to take iron and calcium tablets	Yes	98	2
5	Size of breast determines the quantity of breast milk secretion	No	88	12
6	Low birth baby should be breastfed more frequently	Yes	66	34
7	Breastfed child should be made to burp after every feed to avoid regurgitation	Yes	94	6
8	Breastfeeding mothers should take consult from the doctor before taking any medicines as they get secreted in the milk	Yes	96	4
9	Breastfeeding mother should keep religious fasts	No	95	5
10	Breastfeeding mother should be given additional diet as compared to the other family members	Yes	92	8

TABLE 3 KNOWLEDGE ABOUT IYCF BEFORE AND AFTER EDUCATIONAL INTERVENTION.

S.No.	Score	Pre test	Post test	P
1	Good	31	98	<0.001
2	Satisfactory	67	2	
3	Poor	2	0	