



EFFECTIVENESS OF THE TRAINING ON INFANT AND YOUNG CHILD FEEDING PRACTICES AMONG ANGANWADI WORKERS AT A RURAL TEACHING HOSPITAL: A CROSS SECTIONAL STUDY

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ABSTRACT **Background:** Anganwadi workers (AWW) are trained community based female workers working under Integrated Child Development Services (ICDS). She is trained in various aspects of health, nutrition especially of nutrition of children below age six years, so is an essential agent for mobilizing community support for promotion of infant and young child feeding (IYCF) practices and hence would help in reducing child malnutrition rates exorbitantly in any area.

Rationale: The AWW is key functionary who can guide mothers with appropriate IYCF practices in a perfect way provided she herself has correct knowledge regarding IYCF practices.

Objective: To assess the knowledge and attitude of Anganwadi workers regarding IYCF practices. **Material and Methods:** 132 Anganwadi workers were assessed for their knowledge and attitudes regarding IYCF practices. Both pre-test and post-test evaluations were done.

Results: The demographic characteristic revealed that 100% of workers were literate; however, majority were 8th standard pass and only 11.4% were graduate and above. The mean age of AWWs was 46.36 ± 10.56 years. There was significant difference ($P < 0.000$; 95% CI 1.11-4.35) between mean pre-test scores (7.08 ± 1.57) and post-test scores (8.96 ± 1.91) of Anganwadi Workers.

KEYWORDS : Anganwadi Worker; IYCF; Knowledge

Introduction

It is estimated that 10.9 million children worldwide under the age of 5 years die every year, of which 2.4 million deaths occur in India alone. More than half of all deaths in young children are attributable to under-nutrition. Problems such as malnutrition in children, poor maternal and adolescent nutrition, and gender discrimination, all continue to be major challenges in our country. Nearly 67% of the child deaths in India are due to the potentiating effects of malnutrition. Poor IYCF practices and prolonged malnutrition can lead to stunting during the most critical years of life.¹ Infant and Young Child Feeding (IYCF) is a set of well-known and common recommendations for appropriate feeding of new-born and children under two years of age. Exclusive breastfeeding is single most intervention to increase child survival.² Universalizing early (within one hour) & exclusive breastfeeding 0-6 months is major public health intervention to reduce neonatal and infant mortality rate. Optimizing complementary feeding helps in reducing anemia and stunting. So an act of such practices among mothers not only save lives of thousands of babies but also helps in improving health of themselves also.³ According to National Nutrition Report (2015)⁴ of India, 44.6% children aged 0-23 months were breastfed immediately or within one hour of delivery, 64.9% were exclusively breastfed, 50.5% children aged 6-8 months were fed with timely complementary feeding, 36.3% breastfed children aged 6-23 months were given minimum meals for three times a day and only 19.9% were given minimum diet diversity i.e. four or more food groups fed to children age 6-23 months. For the State of Haryana, according to (NFHS-4)⁵, the situation is comparable with national averages as exclusive breastfeeding in 0-5 months is 50.3%, 42.4% for initiation of breastfeeding within one hour of birth, complementary feeding in 6-9 months was only 35.9%, which is lower than the national average and only 7% breastfeeding and 10% non-breastfed children age 6-23 months received adequate diet. Anganwadi workers (AWW) are voluntary workers under ICDS scheme. She is key person at the village level trained in various aspects of health, nutrition especially of nutrition of children below age six years, so is an essential agent for mobilizing community support for promotion of infant and young child feeding (IYCF) practices and would help in reducing child malnutrition rates exorbitantly in any area. Hence this study was conducted with an objective to assess their knowledge and attitude with regards to IYCF, to identify the gaps in their knowledge and to assess effectiveness of health education given to them.

Material and Methods

A community based cross-sectional study was undertaken at general hospital Beri district Jhajjar, Haryana, India which is rural field practice area attached to department of Community Medicine PGIMS, Rohtak for training, teaching and departmental research activities. Out of total 177 AWWs, 132 AWW of community development block Beri participated in study in the month of March.

A predesigned, close ended type questionnaire was developed through an extensive literature review, then tested for its reliability and validity. It consisted of total 13 questions mainly based on IYCF guidelines given by WHO for data collection. After data collection data was entered in Microsoft excel sheet. Scoring was done and classified as good if they had scored (≥ 10), satisfactory (8-10) and poor (≤ 7). Education intervention in the form of training on IYCF was given using flipcharts developed by Ministry of Health & Family Welfare, India for better transfer of knowledge. Post test was conducted using same questionnaire thirty minutes after intervention, then analyzed using SPSS software version 20.

Results

In our study knowledge regarding IYCF practices found to be inadequate among them and improved with educational intervention. Reliability analysis of questionnaire was done with SPSS and Cronbach's α value was 0.763 which is acceptable. The demographic characteristic revealed that 100% of workers were literate; however, majority were 8th standard pass and only 11.4% were graduate and above. The mean age of AWWs was 46.36 ± 10.56 years. There was significant difference ($P < 0.000$; 95% CI 1.11-4.35) between mean pre-test scores (7.08 ± 1.57) and post-test scores (8.96 ± 1.91) of Anganwadi Workers. The change in knowledge was found to be highly significant (Table 1).

Table 1. Knowledge about IYCF practices among Anganwadi workers before and after education intervention (n= 132)

Characteristics	Pretest n (%)	Post-test n (%)	P value
1 Knowledge about time of initiation of BF after normal delivery	122(92.40)	121(91.7)	0.782
2 Knowledge about time of initiation of BF after caesarean delivery	51(38.6)	110(80.3)	0.000*
3 Knowledge about duration of exclusive breastfeeding	109(82.6)	106(80.3)	0.532
4. Knowledge about pre-lacteal feeds	123(93.2)	126(95.5)	0.405
5. Knowledge about bottle feeding	127(96.2)	127(96.2)	1.000
6. Knowledge about extra intake of milk during breast feeding	23(17.4)	38(28.8)	0.000*
7. Knowledge about advantages of BF for baby (at-least 3)	49(37.1)	60(45.5)	0.131
8. Knowledge about advantages of BF for mother (at-least 3)	30(22.7)	76(57.6)	0.000
9. Knowledge about correct positioning while BF	3(2.3)	51(38.6)	0.000*

10. Knowledge about correct attachment while BF	5(3.8)	38(28.8)	0.000*
11. Knowledge about timely complementary feeding	117(88.6)	127(91.7)	0.003*
12. Knowledge about minimal diet diversity	82(62.1)	103(78)	0.002*
13. Knowledge about continuous breastfeeding for 2 years or beyond	90(68.2)	110(83.3)	0.001*

Pretest score was good in 1(0.8%) participant only which is increased to 27(20.5%) participants after educational intervention. The change in knowledge found to be highly significant (p=0.000) using Mc Nemar’s test. Similarly, satisfactory pretest score among 51(38.6%) participants improved to 73(55.3%) in post test which was observed to be significant. Furthermore, 80(60.6%) participants scored poor pretest score and after educational intervention only 32(24.2%) participants score poor post test score.(Table2. Fig 1)

Table 2. Knowledge about IYCF after Education Intervention

IYCF scores	Pre-test score (N%) N=132	Post-test (N %) N= 132	P value
Good (>10)	1(0.8 %)	27(20.5 %)	.000
Satisfactory (8-10)	51(38.6%)	73(55.3%)	.000
Poor (≤7)	80(60.6%)	32(24.2%)	.000

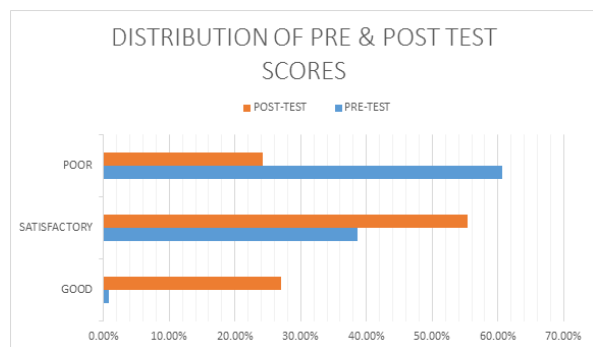


Figure 1: distribution of pre and post test scores among study participants after educational intervention.

Discussion

Anganwadi workers are key functionaries for effective implementation of ICDS scheme in India. They are trained to give health education to pregnant & lactating mothers regarding breastfeeding and complementary feeding, supplementary nutrition of children of age 0 – 6 years, growth monitoring, non-formal preschool education, referral services to severely malnourished children and assisting health staff in conducting outreach immunization.⁶

In our study, AWWs had proper knowledge on the fact that bottle feeding should not be done, pre-lacteal food should not be given and breast feeding should be started as early as possible or preferably within an hour after normal delivery. However, knowledge regarding proper positioning, attachment, initiation of breastfeeding after caesarean delivery, minimal diet diversity and how long breastfeeding should be continued are found to be inadequate (Table 1). After education intervention their knowledge is significantly increased (Table 2). Similar study conducted by Taskande et al. observed that 19% of them had good scores which was improved to 76% after educational intervention but it was done among Anganwadi Supervisors.⁶ Thakare et al. 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.⁷ Satpathy et al. conducted a study of AWWs on their knowledge, attitude, and practice surveys on breastfeeding, and reported that an average knowledge regarding breastfeeding was adequate.⁸ Halder et al.⁹ reported that their training in infant feeding practices improved the knowledge of the participants and that repeat sessions were very useful. Hence it is very important to support them with repetitive practical orientation programs so that it would bring desirable behavioral change in the community

Conclusion

There seems to be a noticeable gap between the overall knowledge of

AWWs regarding IYCF practices. Repetitive practical orientation programs would help in increasing the knowledge of AWWs and improving their skills for implementation of correct IYCF norms.

Recommendations

In the present study, flipchart developed by MOHFW were used for training purpose. This study strongly recommends use of Microteaching, a technique that could be exploited in peer groups or small batches to develop teaching and learning skills under the guidance of a supervisor. Multimedia presentations can be used for better transfer of knowledge. The Women and Child Development department must take initiative to improve quality of training by using multimedia techniques, microteaching, audiovisual aids to achieve improvement in the quality of early childhood care & development.

Limitations This study has the cross-sectional design, which prevented us from determining causality. Longitudinal studies are proposed to overcome it

Abbreviations

- AWW : Anganwadi Worker
- BF : Breastfeeding
- IYCF : Infant and young Child feeding Practices
- ICDS : Integrated Child Development Services
- MOHFW : Ministry of Health and Family Welfare

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