

Original Research Article

<https://doi.org/10.20546/ijcmas.2023.1201.007>

Information Materials on Weaning Practices for Rural Women of Dantiwada Taluka, India

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ABSTRACT

Using media engages learner's maximum senses so that they can retain the information. The present study aims to develop and evaluate Information Materials (IM) on weaning practices and to see the variation in awareness about weaning practices, if any, among rural weaning mothers of Dantiwada Taluka after administration of Information Materials (IM). 160 respondents from sixteen Anganwadis were randomly selected for the study. Based on the literature reviewed, three types of Information Materials on recommended weaning practices i.e. Visual, Audio, and Audio-visual Aid was developed for the study and varied combination was administered to find difference in gain in weaning awareness. Data was collected by personal interview technique. Statistical analysis was done by computing, frequency, percentage, standard deviation and correlation co-efficient, paired 't' test, ANOVA. The result before and after administration of varied combinations (visual with audio; audio with video; visual with video and audio, visual and video all together) was found to be extremely statistically significant at less than 0.0001. Thus it can be stated that there was increase in awareness among the respondents regarding weaning practices after administration of varied combination of IM. Audio, visual and video used all together, was ranked first, for increasing awareness level among rural mothers regarding weaning practice. Education ($r=0.297$) and mass media ($r=0.224$) showed positive and highly significant correlation with 'awareness about weaning practices' and occupation ($r=0.176$) showed positive and significant correlation with awareness level. It can be concluded from the study that varied combinations of all the three Information material i.e., Audio aid, visual aid and Audio-visual (Video) aid were found to be effective in increasing awareness among rural respondents regarding weaning practices. Thus, maximum number of information materials should be used for enhancing awareness among rural mothers regarding weaning.

Keywords

Information material, awareness, visual aid, audio aid, audio-video aid weaning practices, rural women

Article Info

Received:

11 December 2022

Accepted:

31 December 2022

Available Online:

10 January 2023

Introduction

Innovative information and communication technologies have developed possibility to solve the problems of rural people. It bridges the gap between well informed and poorly informed people for sustainable development. These days producing and storing information material is less challenging in comparison to getting people to use it. The use of information material depends upon the skill and practice used for preparing it.

Information material is extension material such as poster, leaflet, chart, booklet, folder, pamphlet, newsletter, advertisement, display show, banner, audio clips, video, documentary etc. that helps to raise awareness regarding the existing problems in early learning process and, at later stage can be useful as necessary information on technical options and solutions.

Growth of any country depends on healthy human resource. A healthy adult emerges from a healthy child. It is the health status of children of any country that represents the health status of people of that country. Healthy children ensure for healthy adult who in turn ensure a sound growth and development of the economy. The first six years of life constitutes the most crucial span in life. At this stage of life, the foundations are laid for mental, physical and social developments which in turn impact our life time health, strength and intelligence.

According to NFHS-4 (2015-16), the children age 6-8 months receiving solid or semi-solid food and breast milk is 42.7 per cent in India and that of Gujarat is 49.4 per cent. The breastfed children of age 6-23 months receiving adequate diet in India is merely 8.7 per cent while in Gujarat it is 5.8 per cent. The non-breastfed children of age 6-23 months receiving adequate diet in India was found to be 14.3 per cent and in Gujarat it was 2.8 per cent. In total, the children of age 6-23 months receiving adequate diet in India was found to be only 9.6 per cent while in Gujarat was 5.2 per cent.

The above data of NFHS-4 (2015-16) and researches

on complementary feeding by Gadhavi, (2016); Katiyar *et al.*, (1998); Bekele and Berhane (1998); Kalanda (2006); Bhandari *et al.*, (2004); Jalab and Bryan (2006); Deway and Adu (2008) shows urgent need to increase the awareness among the mothers about weaning practices so that nutritional status of children could be improved. The World Health Organization also recommends exclusive breast feeding till six months of age followed by breast feeding along with complementary feeding thereafter for optimal growth of children.

Studies have shown that utilizing information material such as video (Savitha, 2014), visual aid (Nithiya, 2016) or structured teaching material (Soumya, 2013) helps to improve awareness/knowledge gain among rural mothers regarding varied nutritional and health issues.

The main objectives include to study personal, socio-economic and communicational characteristics of rural mothers and to evaluate effectiveness of information materials in terms of awareness gained for recommended weaning practices among respondents. Also to find association between personal, socio-economic, communication characteristics and awareness gained about weaning practices through information materials.

Materials and Methods

The study was conducted in randomly selected Anganwadis of Dantiwada Taluka of Banaskantha District, Gujarat state. Out of total one hundred twenty nine Anganwadis in Taluka, sixteen Anganwadis were randomly selected for the study.

Age of respondents, age of youngest child, education of the respondents, caste category, family type, family size, family income, family occupation, land holding, number of animals, association with Anganwadi and mass media exposure were studied as independent variables. Awareness about weaning practices were studied as dependent variables. The interview schedule developed by Gadhavi (2016) was used for the study.

Based on the literature reviewed, three types of Information Materials on recommended weaning practices i.e. Visual, Audio, and Audio-visual Aid was used for the study. Advice from CDPO, pediatrician, extension officials and the media development experts were incorporated to finalize the content. The content for enhancing awareness on weaning was kept same for Visual Aid, Audio Aid and Audio-Video Aid. The following content were finalized for making Information Materials i.e., understanding weaning concept, Methods and type of weaning foods, Frequency of feeding, Problems faced during weaning, Foods to be avoided during weaning and Basic hygiene during weaning.

The Information Material was used in combination. Out of 160 respondents, forty respondents were exposed to (AB) i.e., visual aid and audio clip; the next 40 respondents were exposed to (BC) i.e., audio clip and audio-visual clip; and the other 40 respondents were exposed to (AC) i.e., visual and audio-visual clip. The remaining 40 were exposed to (ABC) i.e. visual, audio, and audio-visual aid.

Data was collected by personal interview technique after administration of varied combination of IM. Statistical analysis was done by computing, frequency, percentage, standard deviation and correlation coefficient, paired 't' test, ANOVA.

Results and Discussion

Data collected on personal and social, communicational characteristics of the respondents were analyzed.

Data presented in table 1 shows that maximum (66.87 %) of the respondents who were primary caregivers to the weaning child, belonged to the age group of (23–31) years, (65.62%) of the respondents' children belonged to age of 12-24 months, that almost half (50.63%) of the respondents were educated to primary level, maximum respondents (44.37 %) belonged from Socially and Economically Backward Class (SEBC), (61.25%) of the respondents belonged to joint

family, (62.5%) of the respondents belonged to medium size family with 5 to 8 members, (85.63 %) of the respondents were earning monthly income of (Rs. 2,935 - Rs. 22,211); (47.50%) of the respondents were housewife, slightly more than half (51.87%) of the respondents were landless, nearly half (51.87%) of the respondents did not have any milch animals, (96.25%) of the respondents were registered members of Anganwadi, and majority (85.62 %) of the respondents had low level of mass media exposure.

Comparison of overall awareness level before and after administration of IM

Four groups were made containing 40 respondents in each group. Each group was exposed to combination of varied IM. The pre and post test was done before and after administration of varied combination of IM. The results obtained were as follows:

It is observed from the table 2 that before and after administration of AB combination i.e., Information material on Visual Aid (IM-VA) + Information Material on Audio Aid (IM-AA), the mean score obtained was 75.63 and 87.55 respectively.

After showing BC combination i.e., Information material on Audio Aid (IM-AA) + Information Material on Audio-Visual Aid (IM-AVA), the mean score obtained was 80.18 and 89.15 respectively.

The table shows that after viewing CA combination i.e., Information material on Audio-Visual Aid (IM-AVA) + Information Material on Visual Aid (IM-VA), the mean score obtained was 77.13 and 89.70 respectively.

It can be seen from the table that after ABC combination was shown to the respondents i.e., Information Material on Visual Aid (IM-VA) + Information material on Audio Aid (IM-AA) + Information Material on Audio-Visual Aid (IM-AVA), the mean score obtained was 67.63 and 90.18 respectively.

Thus it can be concluded from the table that, after administration of every combinations of information material, there was increase in awareness among the respondents regarding weaning practices.

Difference in gain in knowledge when varied combinations of IM are used

To find out, whether there is any difference in gain in knowledge when varied combinations of IM is used. Thus, the data were analysed as per method of Complete Randomised Design (CRD).

The analysis given in table 3 showed that the test was found to be highly significant. The data indicates that, there was significance difference in gain in awareness level among the rural mothers who were exposed to varied combinations of IM.

Ranking of combination of IM which is best for increasing awareness level

In order to find out that which combination of IM is best for increasing awareness level among rural mothers regarding weaning practice, percentage on the basis of scores obtained were computed and compared. Rank was given accordingly.

Ranking of different combinations of Information Material on the basis of gain in awareness level among rural mothers regarding weaning practices were obtained and it was found that combination ABC was ranked first, followed by combination CA, BC and then AB combination. It means, when Audio, visual (chart) and Audio-visual (video) was used in combination then there is maximum gain (mean=90.18) in awareness level. The reason could be that maximum sense organs are used when all the three IM were used all together.

Followed by CA combination *i.e.*, video is combined with visual (chart) then gain in awareness level is high (mean= 89.70) in comparison to Audio

and Audio-visual (video) combination (mean=89.15).

Least gain in awareness (mean=87.55) was observed when visual and audio were combined together.

Association between personal, socio- economic, communication characteristics and awareness gained about weaning practices through information materials

Awareness about weaning practices among respondents after administration of IM showed positive and highly significant association with 'education' (X_3)(0.297) and 'mass media exposure' (X_{12})(0.224) at 1 per cent level.

Further, awareness about weaning practices among respondents after administration of IM showed positive and significant association with 'respondents of occupation' (X_8)(0.176) at 5 per cent level.

Differenced result as obtained by Jain (2005) who reported significant correlation between $r=.466$ gain after administration of Audio-Visual Aid and Visual Aid. Highly significant correlation between $r=.529$ gain after administration of Audio-Visual Aid and Visual Aid.

Age of respondents (X_1), Age of youngest child(X_2), Caste category(X_4), Family type(X_5), Family size(X_6), Family income (monthly)(X_7), Land holding(X_9), Number of Milch animals (X_{10}) and Association with Anganwadi(X_{11}) showed not significant association with awareness level after administration of IM.

Difference result as obtained by Jain (2005) who found that significant correlation between family size had a positive and significant relationship with respondents gain in knowledge.

Table.1 Distribution of respondents according to their personal, social and communicational characteristics
n=160

Sr. No.		f	%
	Age		
1.	≤ 23 Years	28	17.50
2.	23 -31 Years	107	66.87
3.	≥ 31 Years	25	15.63
	Age of child (months)		
1.	6 to 8	32	20.00
2.	8 to 12	23	14.38
3.	12 to 24	105	65.62
	Education		
1.	Illiterate	48	30.00
2.	Primary school education (1 st to 8 th standard)	81	50.63
3.	Secondary school education (9 th to 10 th standard)	14	08.75
4.	Higher secondary education (11 th to 12 th standard)	11	06.88
5.	Diploma , Graduate and above	06	03.74
	Caste Category		
1.	Schedule Caste (SC)	20	12.50
2.	Schedule Tribe (ST)	59	36.88
3.	Socially and Economically Backward Class (SEBC)	71	44.37
4.	General	10	06.25
	Family types		
1.	Nuclear family	62	38.75
2.	Joint family	98	61.25
	Family size		
1.	Small (up to 4 members)	40	25.00
2.	Medium (5 to 8 members)	100	62.50
3.	Large (above 8 members)	20	12.50
	Monthly income		
1.	Rs. 2,934	3	01.87
2.	Rs. 2,935 - Rs. 22,211	137	85.63
3.	Rs. 22,212	20	12.50
	Respondents occupation		
1.	Women farm labor+ Animal Husbandry	30	18.75
2.	Farming at own land and Animal Husbandry	47	29.37
3.	Anganwadi worker+ Business	07	04.38
4.	Housewife	76	47.50
	Size of land holding (hectare)		
1.	Landless	83	51.87
2.	Marginal farmer (<1 to 2.5 ha)	71	44.37
3.	Small farmer (<2.6 to 5 ha)	05	03.13
4.	Medium farmer (>5.1 to 10 ha)	01	00.63

Number of Milch animals			
1	0	83	51.87
2	1-2	57	35.63
3	3-5	17	10.63
4	>6	03	01.87
Association with Anganwadi			
1	Registered	154	96.25
2	Holding position	06	03.75
Mass media exposure			
1	Low (5 to 11)	137	85.62
2	Medium (12 to 18)	18	11.25
3	High (19 to 25)	05	03.13

Table.2 Comparison of gain in awareness among the respondents after administration of varied combination of information materials

n=160

Combination of IM and Group	No. of Respondents		Mean	SD	SEM	S.E.(d)	df	Calculated Z value	Significance (p)
AB Group-1	40	Pre test	75.63	10.443	1.65	1.12	39	10.66	<0.01
		Post test	87.55	8.070	1.28				
BC Group-2	40	Pre test	80.18	6.691	1.06	0.97	39	9.30	<0.01
		Post test	89.15	6.882	1.09				
CA Group-3	40	Pre test	77.13	9.717	1.54	1.30	39	9.69	<0.01
		Post test	89.70	7.187	1.14				
ABC Group-4	40	Pre test	67.63	6.934	1.10	0.88	39	25.50	<0.01
		Post test	90.18	5.892	0.93				

** Extremely statistically significant at less than 0.0001.

Table.3 ANOVA for gain in awareness level of varied groups exposed to varied combination of IM

Sources of variation	Degree of freedom	Sum of square	Mean square	Calculated 'F'	Table 'F' at 5% level	Result
Treatments (between the treatment)	3	156.519	52.173	1.049	.372	**
Error (with in treatment)	156	7755.175	49.713			
Total	159	7911.694				

Table.4 Ranking of different combinations of Information Material on the basis of gain in awareness level

Sr. no.	Different Combinations of IM	Score	Per cent	Rank
1	AB	3502/4000	87.55	IV
2	BC	3566/4000	89.15	III
3	CA	3588/4000	89.70	II
4	ABC	3607/4000	90.18	I

Table.5 Correlation between independent variable and dependent variables

Sr. No.	Independent variable	Dependent variable
		Correlation coefficient (r) (Awareness about weaning practices) (post test) (Y ₂)
1.	Age of respondents (X ₁)	-0.147 ^{NS}
2.	Age of youngest child(X ₂)	0.104 ^{NS}
3.	Education(X ₃)	0.297**
4.	Caste category(X ₄)	-0.017 ^{NS}
5.	Family type(X ₅)	0.126 ^{NS}
6.	Family size(X ₆)	-0.015 ^{NS}
7.	Family income (monthly)(X ₇)	0.086 ^{NS}
8.	Occupation of respondents (X ₈)	0.176*
9.	Land holding(X ₉)	0.038 ^{NS}
10.	Number of Milch animals (X ₁₀)	-0.042 ^{NS}
11.	Association with Anganwadi(X ₁₁)	0.113 ^{NS}
12.	Mass media exposure(X ₁₂)	0.224**

*. Significant at the 5per cent level; **.Significant at the 1 per cent level; NS= Not Significant

It can be revealed from the study that with increase in exposure to education, occupation and mass media the awareness about weaning practices of the respondents also increases. Thus, education programmes in media such as audio programme, visuals and video should be increased so as to increase awareness on weaning practices. The varied combinations of all the three Information material *i.e.*, Audio aid, visual aid and Audio-visual (Video) aid were found to be effective in increasing awareness among rural respondents regarding weaning practices. When Audio, visual (chart) and Audio-visual (video) were used all together then maximum gain in awareness level was observed. Thus, maximum number of information materials should be used for enhancing awareness among rural mothers regarding weaning.

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How to cite this article:

Bavishi Tejasveeta, K., Serene Shekhar and Sarita Sanwal. 2023. Information Materials on Weaning Practices for Rural Women of Dantiwada Taluka. *Int.J.Curr.Microbiol.App.Sci*. 12(01): 60-67.
doi: <https://doi.org/10.20546/ijcmas.2023.1201.007>