International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 22s, 2025
https://theaspd.com/index.php

"Impact of a Health Education–Based Interventional Plan on Knowledge About Exclusive Breastfeeding Among Mothers of Rural Area in Udaipur District"

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ABSTRACT

Background:-*Every year, two million Indian children died before their fifth birthday, most of them from preventable causes. Globally it is recommend that infants be fed only breast milk for the first six months of life with no other foods or fluids not even water, referred as exclusive breastfeeding. However, in India, only 46 percent of infants were exclusively breastfed and rates have shown little improvement in the last decade.*

Aim: - *The present study aimed to improve the knowledge on exclusive Breastfeeding among Mothers of rural area in Udaipur District".*

Methods: *Evaluative research approach and pre- experimental, one-group pre-test - post-test research designs were adopted for this study. Using a non-probability, purposive sampling technique, 40 mothers were recruited from two villages from Gram Panchayat, Pratappura, Bhillo ka Bedla, Badgaon, Udaipur (Raj.). Tools include demographic data and a self-structured knowledge questionnaire. Data were analyzed using descriptive and inferential values by IBM statistical package for social sciences (SPSS; version 23) software.*

Results: *Data revealed that there is a lack of knowledge regarding exclusive Breastfeeding among Mothers and this knowledge can be increased by administering Health Education–Based Interventional Plan on knowledge of Breastfeeding. The mean and standard deviation of the post-test knowledge score of 12.21±3.12 was higher than the mean and standard deviation of the pre-test knowledge score 19.89±2.13. The calculated't' value of 9.39 ($p \leq 0.05$) showed that there is a significant difference between the pre and post-test knowledge scores.There is no association between knowledge and selected demographic variables like age, religion, type of family, education, occupation and source of knowledge.*

Conclusions*: It is required to focus on Health Education–Based Interventional Plan to improve the knowledge regarding exclusive Breastfeeding among mothers.*

Keywords: *Exclusive Breastfeeding, Mothers, Knowledge.*

INTRODUCTION

Exclusive breastfeeding is a cornerstone of optimal infant nutrition, yet its successful adoption depends not only on a mother's willingness but also on her knowledge and understanding of its importance, techniques, and benefits. The WHO defines EBF as feeding an infant only breast milk—either directly from the breast or expressed—without any additional liquids or solids except for oral rehydration solutions, vitamins, minerals, or medicines, for the first six months of life. Adequate maternal knowledge about EBF has been consistently linked with higher initiation rates, longer breastfeeding duration, and better infant health outcomes.

Knowledge regarding exclusive breastfeeding encompasses various aspects: the recommended duration, the nutritional and immunological benefits to the infant, health advantages for the mother, correct breastfeeding techniques, the importance of colostrum, and awareness of potential challenges and solutions.

Despite strong national and global recommendations, gaps in maternal knowledge persist in many

regions; including India. Factors influencing maternal knowledge include education level, cultural beliefs, exposure to health education, advice from healthcare providers, and socio-economic status. Health education interventions, especially those delivered during the antenatal and immediate postnatal periods, play a critical role in bridging knowledge gaps. Structured counseling, demonstrations, and follow-up support have been shown to significantly improve mothers' understanding of EBF and translate this knowledge into practice.

Methods- The present study used evaluative approach, a pre experimental, one-group, pre-test- post-test designs to assess the "Impact of a Health Education–Based Interventional Plan on exclusive Breastfeeding among Mothers of rural area in Udaipur District". Baseline data were collected before and after Health Education–Based Interventional Plan. The study conducted by exercising interviews among mothers by the researcher during June 2024. The 40 mothers were selected from use of purposive sampling technique from the two villages of Gram Panchayat, Pratappura, Bhillo ka Bedla, Badgaon, Udaipur (Raj.). 40 mothers have participated with inclusion criteria of those mothers who have 6 month age below child to participate, and those who can speak and understand the Hindi or English. After seeking their valuable comments and suggestions, tools were modified. The structured questionnaire consisted of 20 multiple choice questions. The test-retest method was used for the reliability of the data and it was found 0.91 which suggests that tool was highly reliable.

Data collection procedure

Structured interview schedule- Formal permission was obtained from the Sarpanch of the gram panchayat. The researcher conducted structured interview schedule process, emphasizing its privacy and confidentiality, and their consent to participate was requested, utilizing a structured consent form in the person's preferred language as Hindi or English. Mothers were recruited until the necessary sample sizes were reached. A total of 40 mothers consented to participate. Structured interviews were conducted at the homes of each person by interviewers trained in the study procedures to ensure that personal privacy was maintained.

Data analysis

Data collected were collated and subjected to statistical analysis using SPSS 23 version. Descriptive statistics viz. mean, standard deviation, percentage, and frequency were used to describe the demographic characteristics of the study participants. Used a chi square test for the association between socio-demographic variables with the pre-test knowledge score. We set the statistical significance level at $p<0.05$ and a 95% confidence interval. Results are presented using Tables and Figures.

RESULTS

A majority of participants 18 were in the age group of 25-30 (45%) years. The majority of the 39 (97.50%) were Hindu religion, 32 (80%) mothers were belongs to nuclear family, 23 (57.50%) were having higher secondary educational qualification, 33 (82.50%) were house wife, and 19 (47.50%) were getting information through Mass media- T.V. etc.

Table 1: Socio-demographic characteristics.

S.N.	Demographic Variables	Freq.	%
1	**Age in Years**		
	A) <25 years	5	12.50
	B) 26-35 years	18	45
	C) 36-45 years	12	30
	D) Above 45 years	5	12.50
2	**Religion**		
	A) Hindu	39	97.50
	B) Christian	0	0
	C) Jain	1	2.50
	D) Muslim	0	0

3	**Type of family**		
	A) Nuclear	32	80
	B) Joint	8	20
4	**Educational qualification**		
	A) Primary	4	10
	B) Upper primary	9	22.50
	C) Higher secondary	23	57.50
	D) Graduate, Post Grad.	4	10
5	**Occupation**		
	A) House Wife	33	82.50
	B) Govt. Job	0	0
	C) Private Job.	0	0
	D) Skilled Worker	7	17.50
6	**Source of Knowledge**		
	A) Family members	12	30
	B) Health personnel	5	12.50
	C) Mass media- T.V. etc	19	47.50
	D) All of above	4	10

In the pre-test knowledge score, the majority of the mothers 81% had inadequate knowledge scores, 14% of the mothers had moderately adequate knowledge scores and 5% of the mothers had adequate knowledge scores while in the post-test majority of mothers 74% had adequate knowledge 25% of the mothers had moderately adequate knowledge score and 1% of the mothers had inadequate knowledge as depicted in table-1. The mean and mean% post-test knowledge score on exclusive Breastfeeding, 12.21±3.12 (24.71%) was higher than the mean pre-test knowledge score of 19.89±2.13 (75.29%) and the mean % difference was 50.58% as depicted in fig.1. The calculated't' value of 9.39 ($p \leq 0.05$) showed that there is a significant difference between the pre and post-test knowledge scores as depicted in table-2. There was no association between the pre test knowledge score with the selected demographic variables as depicted in table-3.

Table-2: Effectiveness of Health Education–Based Interventional Plan regarding knowledge on exclusive breast feeding.

S.N.	Test	Mean %	Mean % Difference	Mean±SD	Paired t test
1	Pre Test	24.71%	50.58%	12.21±3.12	9.39
2	Post Test	75.29%		19.89±2.13	

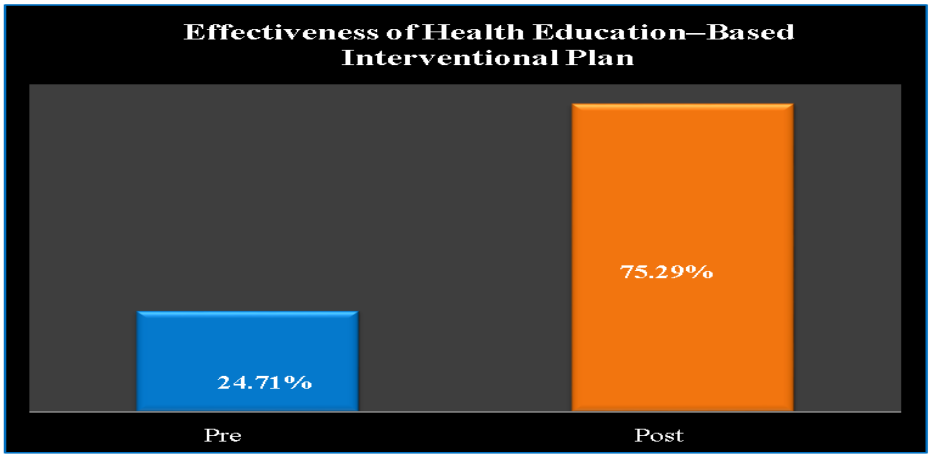

Fig. 1. Bar Diagram represent the effectiveness of Health Education–Based Interventional Plan on Knowledge

Table-3. Describes the association between the pre test knowledge score with the selected demographic variables.

S.N.	Demographic Variables	Pre test knowledge score			d.f.	chi square	table value	Sig.
		Adequate Knowledge	Moderately adequate Knowledge	Inadequate Knowledge				
	Age in Years							
1	A) <25 years	0	1	4	6	4.52	12.4	NS
	B) 26-35 years	0	5	13				
	C) 36-45 years	0	3	9				
	D) Above 45 years	0	2	3				
	Religion							
2	A) Hindu	0	10	29	6	1.25	12.4	NS
	B) Christian	0	0	0				
	C) Jain	0	1	0				
	D) Muslim	0	0	0				
	Type of family							
3	A) Nuclear	0	7	25	4	0.21	9.49	NS
	B) Joint	0	4	4				
	Educational qualification							
4	A) Primary	0	1	3	6	5.21	12.4	NS
	B) Upper primary	0	3	6				
	C) Higher secondary	0	5	18				
	D) Graduate, Post Grad.	0	2	2				
	Occupation							
5	A) House Wife	0	9	24	6	4.68	12.4	NS
	B) Govt. Job	0	0	0				
	C) Private Job.	0	0	0				
	D) Skilled Worker	0	2	5				
	Source of Knowledge							
6	A) Family members	0	1	11	6	4.36	12.4	NS
	B) Health personnel	0	2	3				
	C) Mass media- T.V. etc	0	7	12				
	D) All of above	0	1	3				

DISCUSSION

In the present study, we assessed the self-developed interventional tool health education–based interventional plan for knowledge on exclusive breast feeding. The health education–based interventional plan on exclusive breast feeding helps to increase the knowledge among mothers living in rural area in Udaipur District. The present study shows an increase in knowledge among mothers regarding exclusive breast feeding. The mean and mean% post-test knowledge score on exclusive Breastfeeding, 12.21±3.12 (24.71%) was higher than the mean pre-test knowledge score of 19.89±2.13 (75.29%) and the mean % difference was 50.58%. The calculated't' value of 9.39 ($p \leq 0.05$) showed that there is a significant difference between the pre and post-test knowledge scores. Similar study conducted by the S.R. Patrikar, D.R. Basannar, Maj Seema Sharma conducted a cross sectional study on women empowerment and use of contraception among 385 currently married women in pune, India. The study gives the evidence that decision making power is low in the respondents with 48.2% of them having low level of power, while 27.6% have medium level and 3.6% having high level of decision making power, which is approximately similar with the findings of investigator's study. One more study conducted by the Kulkarni, Rekhsde a study on knowledge and practice of 100 mothers about breast feeding in Indore city. The study findings showed that 98% mothers had knowledge about breast feeding. Knowledge about duration of exclusive breast feeding was 70% and 100% mother were aware of colostrum feeding. So this study is partially similar to the investigator's study.

CONCLUSION

It is required to improve knowledge towards exclusive breast feeding among mothers. Health education–based interventional plan is good means of awareness to improve the knowledge regarding exclusive breast feeding among mothers living in rural area of Udaipur District (Raj.). Health education–based interventional plan was found significantly effective to improve the knowledge regarding exclusive breast feeding among mothers. Health education–based interventional plan must be an integral part of the health care delivery system at a peripheral level to effectively increase the knowledge of exclusive breast feeding.

Funding- Nil

Conflict of Interest-The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

BIBLIOGRAPHY

1. WHO. Exclusive breastfeeding for optimal growth, development and health of infants. Geneva: World Health Organization; 2021.

2. Olang B, et al. Breastfeeding practices and maternal knowledge in Sweden, Iran, and Honduras. BMC Public Health. 2009; 9:175.

3. Ekambaram M, et al. Knowledge, attitude and practice of breastfeeding among postnatal mothers. Curr Pediatr Res. 2010; 14(2):119–124.

4. Ministry of Health and Family Welfare. National Family Health Survey-5 (2019-21): India Fact Sheet.

5. Haroon S, et al. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. BMC Public Health. 2013; 13(Suppl3):S2.

6. Kumawat HK, Gupta AP, Sharma R, Sharma D. (2022) A quasi – experimental study on knowledge & attitude regarding COVID – 19 among secondary school students. International journal of creative research thoughts (IJCRT). 2022; 10: 305 – 315.

7. Mistry R, Galal o, Michel LU.Women's autonomy and pregnancy care in rural India: 12. A contextual analysis. Social science & medicine. 2009. 926-933. Available at: www.eldevier.com/locate/soscimed

8. Bishnoi S,Jood S,Sehgal S,Kawatra A,Yadav K S. A study on nutritional status of rural lactating women of Haryana. The Indian journal of nutrition and dietetics 1999; 36:275- 284. Available at: http://www.informaticsjournals.com/index.php/ijnd/article/view/7171

9. Mishra P C, Gupta S, Tiwari C I , Badgaiyan D R. Dietary pattern of lactating women in an urban community. The Indian journal of nutrition and dietetics 1993; 30:180- 185. Available at: http://www.i-scholar.in/fsrj/article/67809875

10. Kumar V, Sehgal S, Kaur PY. Assessment of nutrition knowledge, attitudes and practices of mothers. The Indian journal of nutrition and dietetics 1989;26:156-159. Available at: http://www.rguhs.ac.in/cdc/onlinecdc/upload/3245098

11. Satn B, Fannie FB, Catherine SY. Husbands' and wives' reports of women's decision-making power in Western Guatemala and their effects on preventive health behaviours.Social science and Medicine 62(9). 2006. 2313-2326. Available at: DOI:10.1016/j.socscimed.2005.20.006

12. Acharya RD, Bell JS, Padam S, Edwin RT and Pramod R. A study on Women's autonomy in household decision-making: a demographic study in Nepal. Reproductive health 7(15).2010.1-12. Available at: http://reproductive-healthjournal. biomedcentral.com/articles/10.1186/1742-4755-7-15