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Effectiveness of Learning Package on Weaning Practices among Primipara Mothers

Hemant Kumar Tak[1], Dharmesh Chaturvedi[2]

[1]Principal, MASS College of Nursing, Udaipur, Rajasthan, India
[2]Ph.D. Nursing Scholar, Sai Tirupati University, Udaipur, Rajasthan, India

Corresponding Author: Dharmesh Chaturvedi

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ABSTRACT

Background: As primipara mothers are unaware about the quantity and quality of the complimentary foods, poor child's feeding practices and high rates of infections causing ill effects to health and growth in period of infancy. Therefore, present study aims to improve knowledge of primipara mothers by giving them learning package on weaning practices.
Method: Quantitative true experimental research design was used to conduct study. A sample of 60 primipara mothers were selected for the study by a lottery method and through randomization and among them, 30 primipara mothers were allotted to experimental group by allotting even numbers, 30 primipara mothers were allotted to control group by allotting odd numbers.
Results: The mean pre test knowledge score in experimental group was 11.00 ± 2.77, whereas mean post test knowledge score in experimental group was 20.96 ± 1.24. The mean pre test knowledge score in control group was 10.60 ± 3.30; whereas mean post test knowledge score in control group was 11.67±1.53. The posttest mean value knowledge score among primipara mothers in the experimental group was significantly higher than the pre test knowledge score of the primipara mothers in the same group. The paired student "t" test value was 20.84 which was significant at P=0.001 level. The findings revealed that there was significant association between knowledge score with residence and educational level of the primipara mothers in experimental group.
Conclusion: Study concluded that weaning practices should be given more weightage for overall growth of the children.

Keywords: Weaning practices, Primipara mothers, knowledge scores, learning package, paediatric OPD

INTRODUCTION

Weaning is defined as the process of giving up one method of feeding for another, weaning usually refers to relinquishing the breast or bottle for a cup. In western societies this is generally regarded as a major task for infant and is often seen as a potentially traumatic experience. It is a psychologically significant because the infant is required to give up a major source of oral pleasure and gratification[1]. Response to child's signs of hunger and feeding abilities, gives help and encouragement (without forced feeding) feeding slowly and patiently, experimenting, with different foods, tastes, combination and textures, minimizing distraction, using plenty of smiles, eye contact and encouraging words, so that feeding becomes a time for learning and love[2]. Breast feeding and family food: Loving and healthy. The food given should "complement°-make complete- with the energy and nutrients provided by breast milk. At 6-11 months period is especially a vulnerable time because infants are just learning to eat and must be fed soft food frequently and patiently[3]. Weaning is the stage in an

infant's life when there is a transition from breast milk to other sources of nourishment. When to wean is a personal decision for the parent. It may be influenced by the health performance decided or simply feeding that it's the right time but it is important to understand that weaning is a gradual process that calls for patience and understanding between the infant and the mother[4]. If Weaning is not proper, children are likely to be malnourished. Weaning is the bridge that the mother has to form between liquid and solid diet. Weaning food should be cheap, easily available and acceptable to the custom. By one year of age the child must be taking all items that are cooked at home. This is called 'family pot feeding'[5]. The sources according to T.V. Sivanandan (2006), The National Rural Health Mission said that the 10th plan target would aim at reducing infant mortality rate to 45 per 1,000 live births by the year 2007 and 28 per 1,000 live births by 2012. It also aimed at reducing the maternal mortality rate to 2 per 1,000 live births by 2007 and 1 per 1,000 live births by 2012[6]. Suraj Gupte (2004) reported that the mother could produce sufficient breast milk to sustain the growth of infants for the first 4-6 months of age. It is necessary to introduce more concentrated nutritional supplements to the infants during that period in addition to breast milk and not instead of it. Introduction of complementary feeds too late results in an inadequate intake of energy and protein leading to poor growth and stunting as well as iron and other nutrient deficiencies[7]. The high incidences of problems related to weaning in children provoked us to select the following topic for the study.

Statement of Problem: An experimental study to assess the effectiveness of learning package on weaning practices among the primipara mothers attending the paediatric OPDs at S.C. Hospital Hassan, Karnataka.

Objectives

1. To assess the level of knowledge regarding weaning of primipara mothers among control and experimental group during pre test.
2. To assess the level of knowledge regarding weaning of primipara mothers among control and experimental group after the administration of learning package.
3. To determine the weaning practices of primipara mothers among control and experimental group after the post test.
4. To associated the weaning practices of primipara mothers with selected socio-demographic variable.

MATERIAL AND METHODS

Research approach:- Quantitative approach.

Research Design:- True experimental research design (pre test and post test with control group) was used to conduct the study.

Research Setting: Study was conducted at S.C. government hospital Hasan, Karnataka.

Population:- Study population consisted of all primipara mothers having infant aged between 6-12 months attending the paediatric OPDs of the S.C. Hospital Hasan, Karnataka.

Sampling technique and sample: 60 primipara mothers selected through simple random technique by a lottery method. Experimental and control group samples (each 30) were allotted through even and odd numbers.

Research Tool: The tools selected for the present study divided in two sections.

Section I:- Socio-demographic variables included 8 items such as age of the infant, Gender of the infant, residence, type of the family, religion, occupation of father, monthly family income, and educational status of the mother.

Section II:- Structured knowledge questionnaire consists of 25 questions to assess the level of knowledge regarding weaning practices. The area included were knowledge on growth and development (5

questions), knowledge on weaning practices (12 questions) and knowledge on weaning (8 questions).

Prior to tool administration all subjects were given an information sheet, explaining the purpose and outcome of study. Informed consent was taken from participants and self explanatory tools were administered to participants. Permission for study was taken from concerned authorities.

RESULTS

According to table 1, there was equal distribution of infants age group 6-9 months and 9-12 months in control group but in experimental group 18 (60%) infants were in age group of 9-12 months, equal gender distribution among both control and experimental group, 17 (56.7%) samples were staying in rural area in the experimental group while 17 (56.7%) samples were staying in urban area in the control group. In relation to type of family, 16 (53.3%) belongs to joint family in experimental group while 20 (66.7%) belong to joint family in control group, 19 (63.3%) samples were Hindus in experimental group and 21 (73.3%) were Hindus in control group. Parent's occupation reveals 17 (56.7%) samples occupation was business in experimental group while 10 (33.3%) samples occupation was business in control group, as per monthly income 12 (40%) samples were distributed in both 10000-20000/- Rs group and 20001-30000/- Rs group in experimental group while 17(56.7%) were in 10000-20000/- Rs group in control group, 16 (53.3%) of the sample had up to secondary level education in experimental group while 12(40%) of samples had up to secondary level education.

The data given in table 2 revealed that, in the experimental group 10 (33.3%) of primipara mothers were having the knowledge on growth and development and in the control group on 10 (33.3%) primipara mothers are having the knowledge on growth and development, in the experimental group 15 (50%) of the primpara mothers are having the knowledge on weaning practices and in the control group 14 (46.7%) of the primipara mothers are having the knowledge on weaning practices, in the experimental group 13 (43.3%) of the primipara mothers are having the knowledge on weaning and in the control group 12 (40%) of the primipara mothers are having the knowledge on weaning. Considering the overall knowledge, it shows that primipara mothers are having almost equal knowledge on growth and development, weaning practice and weaning there was no statistically significant difference between experimental and control group.

As per table 3, in the experimental group 23 (76.7%) of primipara mothers are having the knowledge on growth and development and in the control group 11 (36.7%) of primipara mothers are having the knowledge on growth and development, in the experimental group 26 (86.7%) of the primipara mothers are having the knowledge on weaning practice and on an average in the control group 15 (50%) of the primipara mothers are having the knowledge on weaning practice, in the experimental group 25 (83.3%) of the primipara mothers are having the knowledge on weaning and on an average in the control group 12(40%) of the primipara mothers are having the knowledge on weaning, Considering the overall knowledge, it shows that the primipara mothers of the experimental group are having more knowledge after attending the learning package on weaning practices than the primipara mothers of the control group who did not attend the learning package.

According to table 4 In the pre-test the primipara mothers of the experimental group had a percentage score of 43.3% and in the control group the primipara mothers had a percentage score of 40%, so the difference between experimental and control group score is only 3.3% in the pre-test. Considering the overall, in post-test 83.3% score in experimental group and 43.3% score in control group primipara mothers, so

the difference between experimental and control group score is only 40% in the post-test. This 40% difference between experimental and control group is the net benefit of experimental group primipara mothers due to the learning package.

The data in table 5 shows the pre-test and post-test score on weaning practice on the overall score there is a reasonable difference between pre-test and post-test score. In the experimental group the pre-test mean score is (11.00) and standard deviation score is (2.77) and in post-test the mean score is (20.96) and standard deviation score is (1.24) and in the control group the pre-test mean score is (10.60) and standard deviation score is (3.30) and in post-test the mean score is (11.67) and standard deviation score is (1.53). This difference is statistically significant. This statistical significance between pre-test and post-test was calculated by using student paired t-test ($P<0.05$) and between the groups by using student independent t-test.

The data given in table 6 depicts that in experimental group both residence ($p=0.003$) and level of education ($p=0.03$) were significantly associated with knowledge gain score regarding weaning practices among primipara mothers.

Table: 1. Distribution of samples according to socio demographic variables (N=60)

S. No.	Demographic Variables	Experimental		Control		Total
		Freq.	%	Freq.	%	
1	Age					
a)	6-9 months	15	50%	12	40%	27
b)	9-12 months	15	50%	18	60%	33
2	Gender					
a)	Male	15	50%	15	50%	30
b)	Female	15	50%	15	50%	30
3	Residence					
a)	Rural	17	56.7%	13	43.3%	30
b)	Urban	13	43.3%	17	56.7%	30
4	Type of family					
a)	Nuclear	14	46.7%	10	33.3%	24
b)	Joint	16	53.3%	20	66.7%	36
5	Religion					
a)	Hindu	19	63.3%	22	73.3%	41
b)	Muslim	11	36.7%	08	26.7%	19
6.	Occupation					
a)	Private	03	10.0%	09	30.0%	12
b)	Government	02	6.7%	03	10.0%	05
c)	Business	17	56.7%	10	33.3%	27
d)	Others	08	26.7%	08	26.7%	16
7.	Monthly Income					
a)	10000-20000Rs.	12	40.0%	17	56.7%	29
b)	20001-30000Rs.	12	40.0%	09	30.0%	21
c)	30001-40000Rs.	04	13.3%	02	6.7%	06
d)	>40001Rs.	02	6.7%	02	6.7%	04
8.	Education					
a)	Primary	02	6.7%	06	20%	08
b)	Middle	08	26.7%	08	26.7%	16
c)	Secondary	16	53.3%	12	40%	28
d)	Higher Secondary	03	10.0%	03	10%	06
e)	Graduate	01	3.3%	01	3.3%	02

Table: 2- Pre test level of knowledge on weaning practices among primipara mothers in experimental and control group.

Level of knowledge among primipara mothers on weaning practices	Correct response	
	Experimental (n=30)	Control (n=30)
Knowledge of growth and development	10(33.3%)	10(33.3%)
Knowledge on weaning practices	15(50%)	14(46.7%)
Knowledge on weaning	13(43.3%)	12(40%)
Average no. of primipara mothers	13(43.3%)	12(40%)

Table 3 Post test level of knowledge on weaning practices among primipara mothers in experimental and control group

Level of knowledge among primipara mothers on weaning practices	Correct response	
	Experimental (n=30)	Control (n=30)
Knowledge of growth and development	23(76.7%)	11(36.7%)
Knowledge on weaning practices	26(86.7%)	15(50%)
Knowledge on weaning	25(83.3%)	12(40%)
Average no. of primipara mothers	25(83.3%)	13(43.3%)

Table: 4 Comparison of percentage of difference between pre-test and post-test in experimental and control group

Level of knowledge among primipara mothers on weaning practices	Correct response		
	Experimental (n=30)	Control (n=30)	Difference
Pre test			
Knowledge of growth and development	33.3%	33.3%	00
Knowledge on weaning practices	50%	46.7%	3.3%
Knowledge on weaning	43.3%	40%	3.3%
Overall pre-test	43.3%	40%	3.3%
Post test			
Knowledge of growth and development	76.7%	36.7%	40.0%
Knowledge on weaning practices	86.7%	50%	36.7%
Knowledge on weaning	83.3%	40%	43.3%
Overall post-test	83.3%	43.3%	40.0%

Table: 5 Comparison of mean knowledge score between pre-test and post-test in experimental and control group

Knowledge score	Pre test Mean±SD	Post test Mean±SD	Student paired t-test
Experimental	11.0±2.77	20.96±1.24	t=20.84 P= 0.001 Significant
Control	10.60±3.30	11.67±1.53	t=1.67 P= 0.11 Not Significant
Student Independent t-test	t=0.50 P= 0.62 Not Significant	t=18.02 P= 0.001 Significant	

Table 6 Association between post test knowledge gain score and socio-demographic variables of primipara mothers in experimental group.

Variable		Freq.	Pre-test Mean	Post-test Mean	Gain Score	Statistical inference
Residence	Rural	17	11.29	19.88	8.47	t = 3.28 p =0.003 Significant (Student independent t-test)
	Urban	13	10.29	22.07	11.61	
Level of Education	Primary	2	7.00	20.50	13.50	F = 3.13 p = 0.03 Significant (One way ANOVA F-test)
	Middle	8	13.00	22.37	9.37	
	Secondary	16	11.07	20.75	9.68	
	High. Sec.	3	10.30	23.63	13.33	
	Graduation	1	10.00	24.00	14.00	

DISCUSSION

According to table 2, our study revealed that primipara mothers were having almost equal knowledge in both experimental group 13 (43.3%) and control group 12 (40%) in their pre test and that was found to be inadequate in the both groups. Our findings supported by a study conducted by Kambli S. (2014)[8] in which she revealed that majority of the mothers were having wrong concept about weaning and are not knowledgeable about current weaning recommendations. Our findings also supported by a study conducted by Leelavathi A. (2019)[9] and Graham V.A. et al (1998)[10].

As per table 3 we found that the knowledge of the primipara mothers in the experimental group 25 (83.3%) increased after attending the learning package on weaning practices. Our findings supported by studies conducted by Kadli Sam Prasad (2019)[11] & Raj, E.V. et al (2016)[12] with similar findings.

According to table 4 we found that there was difference between experimental and control group's pre-test knowledge score regarding weaning practices was only 3.3%. But in post-test 83.3% score in experimental group and 43.3% score in control group. This 40% difference between experimental and control group is the net benefit due to the learning package. The difference between experimental and control group was also supported by studies conducted by Kaur Rajveer et al (2019)[13] on breastfeeding.

Data in table 5 revealed statistically significant difference between pre test and post test knowledge score after learning package in experimental group which was calculated by using student paired t-test ($P<0.05$). Our findings supported by studies conducted by Dhanani Pooja et al (2021)[14] & Batra B (2019)[15] with similar findings.

According to table 6 we found that there was significant association between knowledge gain score and socio demographic variables like residence (p = 0.003) and level of education (p = 0.03). Our study finding supported by a study conducted by Beautily V[16] in which she found significant association between knowledge gain score and level of education. Kumari R. et al (2018)[17] also find the similar result with level of education and knowledge level.

CONCLUSION

Findings of our study strongly recommend the need for conducting nursing education program to increase the knowledge on weaning practice among primipara mothers. Educating mothers and providing them correct information can help them to know about weaning practices.

Limitations: The small size (60) of the sample made it difficult to draw generalization. A structured questionnaire was used for data collection which restricts the amount of information that can be obtained from the respondents, only knowledge was assessed; no attempt was made to assess their attitudes and practice due to time shortage and less resources.

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Conflict of Interest: There was no conflict of interest involved while conducting the present study.

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Ethical Approval: Approved

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