

Pilot Study on Efficacy of Antenatal Nursing Educational Program on Infant Feeding Attitude Among Primi Mothers

M VAJRAMMA

Department of OBG nursing, Sri Padmavathamma Govt. College of Nursing, Tirupathi, AP

I. INTRODUCTION

The first line of defense for providing a baby with the best start in life is breastfeeding. Breast milk benefits a baby's health and development in many ways. The child's social, emotional, and mental development all advance. Breast milk contains antibodies that help prevent illness and even death in newborns and young children. Infants, particularly those born preterm or with low birth weight, benefit greatly from breast milk. It has been discovered that store-bought milk is far less nutritious than breast milk. Both the mother and the kid gain from breastfeeding; the infant's advantages are well-established, and the mother-child attachment is reinforced.

A positive attitude towards breastfeeding is important, as it boosts confidence and helps to better practices, markedly impacting newborn health status (fewer infections, allergies, better milestone) and maternal health (faster recovery after delivery, reduced cancer risks and increase the maternal satisfaction). While many primi mothers have good knowledge about benefits, challenges like anxiety, lack of support, and incorrect latch often arise, highlighting the need for focused counselling and education to build positive attitudes and overcome barriers for successful, prolonged

II. OBJECTIVES

1. To assess pre and post test scores of the infant feeding attitude among primi mothers in the experimental and the control group
2. To find out the efficacy of the antenatal nursing educational program on infant feeding attitude among primi mothers
3. To associate the pretest scores of infant feeding attitude scores among primi mothers with their socio demographic and maternal and neonatal variables

Hypotheses

1. There will significantly difference in infant feeding attitude scores between the primi mothers in the experimental and control group
2. There will significantly difference between pretest infant feeding attitude scores with socio demographic and maternal and neonatal variables of the primi mothers in the experimental and control group

III. MATERIALS AND METHOD

3.1. Research approach – An experimental research qualitative research approach adopted

3.2. Research design- quasi experimental pre and post-test design used

3.3. Setting –Sri Padmavathamma Government College of Nursing

3.4. Population-All the primi mothers in Tirupathi, Andhra Pradesh

3.5. Target population-All the primi mothers who are attending the maternity unit of SVRRGG Hospital, Tirupathi, Andhra Pradesh

3.6. Accessible population -All the primi mothers who fulfilled the inclusion criteria and attending the maternity unit of SVRRGG Hospital, Tirupathi, Andhra Pradesh

3.7. Sample sampling technique- convenient sampling technique were used

3.8. Sample-size-18 primi mothers

3.9. Tools-It consists of 4 sections, 1. Socio-demographic variables of the primi mothers 2. maternal and neonatal variables of the primi mothers 3. The IIFAS (Iowa Infant Feeding Attitude Scale) to

assess the breast feeding attitude among primi mothers ,4,Lesson plan breast feeding to educate the mothers which includes introduction and importance, WHO guidelines on breast feeding and breast feeding techniques

3.10. Study Permission- Obtaining formal permission from the authorities of Sri Padmavathamma Government College of Nursing, Andhra Pradesh and the medical superintendent of SVRRGG Hospital, Tirupathi

3.11. Ethical Consideration-Ethical clearance was obtained from the Institutional Human Ethics Committee of Sri Padmavathamma Government College of Nursing Tirupathi, Andhra Pradesh

3.12. Data collection procedures

Step-1: The researcher introduced herself to primi mothers and explained the purpose of study

Step-3: The samples were selected based on the inclusive criteria of the study

Step-4: The written consent taken from the primi mothers who are participated in the study

Step-4: The samples were assured and confidentiality of the information provided by them

Step-5: Firstly, socio- demographic questionnaire were administered followed that maternal and neonatal variable questionnaire administered.

step-6: Pre-test administered of the IIFAS (Iowa Infant Feeding Attitude Scale) to assess the breast-feeding attitude among primi mothers

step-7: Administered of antenatal nursing educational program for 45 minutes

step-8: after 7 days antenatal nursing educational program post test administered of the IIFAS (Iowa Infant Feeding Attitude Scale) to assess the breast-feeding attitude among primi mothers

IV. RESULTS

Frequency and percentage distribution of the socio demographic variables among the mothers in the experimental and control group primi mothers in regard with

- Age of the antenatal mothers -In experimental group: majority 11(61.11%) of the primi mothers were below < 20 years, 3(16.67 %) of them are between 21 to 25 and 26 to 30 respectively 1(5.56%) of them are age group between >30 years. In control group: majority 8(44.44%) of the primi the

mothers were between < 20 years, 7(38.89 %), 2(11.11%) of them are between 21 to 25 and 26 to 30 respectively 1(5.56%) of them are age group between >30 years.

- Age at marriage of the antenatal mothers -In experimental group: majority 10(55.56%) of the primi mothers were married below < 20 years, 2(11.11 %) of them were married age between 21 to 25 and above 30 years respectively and 4(22.22%) of them were married at the age group between 26 to 30 years In control group: majority 7(38.89%) of the primi mothers were married below < 20 years, 4(22.22 %) of them were married age between 21 to 25 and above 30 years respectively and 3(16.67%) of them were married at the age group between 26 to 30 years
- Education status of the antenatal mothers: In experimental group: about 2(11.11 %) of primi the mothers had no formal education, 5(27.78%) of them were had primary and secondary school education, 6(33.33%) of them were studied undergraduate and postgraduate. In control group: about 2 (11.11 %) of primi the mothers had primary school education, 10(55.56%) of them were had secondary school education, 6(33.33%)of them were studied undergraduate and postgraduate
- Type of family: In experimental group: maximum of 14(77.78%) and 4(22.22 %) of primi the mothers were from joint families and nuclear families respectively, and none were from other type. In control group: maximum of 13(72.22%) and 5(27.78 %) of primi the mothers were from joint families and nuclear families respectively, and none were from other type.
- Type of diet: in experimental group: all the 18(100%) primi mothers are vegetarian .In control group: mostly 16(88.89%) of them were non vegetarian and 2(11.11%) of them are vegetarian.
- Yearly income of the family: In experimental group: majority 7(38.89%) of primi the mothers were had monthly salary between 10001 to 15000, and 6(33.33 %), 4(22.22%) of them were had between 15001 to 20000 and 21000 and above respectively.1 (5.565) of them were had the monthly salary of >10000. In control group:

majority 8(44.44%) of primi the mothers were had monthly salary between 10001 to 15000, and 5(22.78%), of them were had between 15001 to 20000 and 21000 and above respectively. none of them had below >1000.

- Employment: in experimental group: about 17(94.44%) of primi the mothers were house wife and 1(5.56%) of them were employed .In control group: about 17(94.44%) of primi the mothers were house wife and 1(5.56%) of them were employed.
- Living area: In the experimental group- about 1(5.56%), 17(94.44%) of the primi mothers are living in urban and rural areas respectively. In the control group about 6(33.33%), 6(66.67%) of the primi mothers are living in urban and rural areas respectively.
- Religion: in the experimental group: majority 16(88.89%) of primi the mothers belonging to Hindu religion and 1(5.56%), of them were belonging to Muslims and Christian respectively. In the control group: majority 15(83.33%) of primi the mothers belonging to Hindu religion and 2(11.11%), 1(5.560%) of them were belonging to Christian and Muslims respectively.

Frequency and percentage of maternal variables among the mothers in the experimental and control group primi mothers in regard with

- Type of pregnancy: : In experimental group: majority 9(50.00%) of the primi mothers had planned pregnancy and 8(44.44%) of them had wanted pregnancy , 1(5.56%) of them had unplanned pregnancy and none of them had unwanted and planned pregnancy
- Gestational age of the primi mothers during delivery: In the experimental group : all the primi mother 18 (100%) had less than 36 weeks gestation . : In the control group : all the primi mother 18 (100%) had less than 36 weeks of gestation
- Mode of delivery: In the experimental group: about 10(55.56%) of the primi mother had caesarean section and

8(44.44%) of them had vaginal delivery. In the control group : about 12(66.67%) of the primi mother had normal vaginal delivery and 8(44.44%) of them had caesarean delivery

- Duration of married life: In the experimental group: about 13(72.22%) of the primi mother were married for 1 year 2(11.11%) 3(16.67%) of them were married 2 and 3 years respectively. And none of them were above 4years and above. In the control group: about 10(55.56%) of the primi mother had 1-year married life 6(33.33%) of them had 2 years of married life, 1(5.56%) of them were had 3 and 4 and above years.
- History of abortion: In the experimental group: about 1(5.56%) of the primi mother had abortion and 17(94.44%) of them not had. In the control group: about 2(11.11%) of the primi mother had abortion and 16(88.89%) of them not had.
- Social support: In the experimental group: about 7(38.39%) of the primi mothers had husband and in laws and 3(16.67 %) of them had paternal relatives, 8(44.44%), of them had maternal relatives and none of them had friends and social worker. In the control group : about 10(38.39%) of the primi mothers had husband and in laws and 1(5.56 %) of them had paternal relatives, 7(38.89%) , of them had maternal relatives and none of them had friends and social worker
- undergone breast feeding eudcation program: In the experimental group: about 4 (22.22%) of the primi mothers had breast feeding teaching program and 14(77.78%) of them not had: In the control group: about 2 (11.11%) of the primi mothers had breast feeding education program and 16(88.89%) of them did not had.
- Gender of the babies: In the experimental group: majority 11 (61.11%) of the primi mothers had male babies and 7(38.89%) of them had female babies. : In the control group: majority 9 (50.00%) of the primi mothers had male and female babies respectively

Comparison of frequency and percentage of pretest and post-test of infant feeding attitude scores among the primi mothers in the experimental and the control group

N=18

Attitude scores	Experimental group		Control group		Chi square test
	n	%	n	%	
Positive to formula feeding	9	50.00%	7	38.89%	$\chi^2=0.45$ P=0.50 (NS) DF=1
Neutral	9	50.00%	11	61.11%	
Positive to breastfeeding	0	0.00%	0	0.00%	
Total	18	100%	18	100%	

p> 0.05 not significant NS=not significant

In comparison of frequency and percentage of pretest and post-test of infant feeding attitude scores among the primi mothers in the experimental and the control group revealed that- In experimental group: about 9 (50.00%) of the primi mothers had positive for formula feeding and neutral respectively and none of them had positive for breast feeding , In control group

:about 11(61.11%) of them had positive for formula feeding and 7(38.89%) of them had neutral attitude and none of them had positive to breast feeding. and the calculated chi-square value was 0.45 is higher than the p value of P=0.50. So statistically there is no significant difference between experimental and control group

Comparison of frequency and percentage of pretest and post-test of infant feeding attitude scores among the primi mothers in the experimental and the control group

N=18

Attitude scores	Experimental group		Control group		Chi square test
	n	%	n	%	
Positive to formula feeding	3	16.67%	7	38.89%	$\chi^2=6.32$ P=0.05* (S) DF=2
Neutral	8	44.44%	10	55.56%	
Positive to breastfeeding	7	38.88%	1	5.56%	
Total	18	100%	18	100%	

p< 0.05 significant S=not significant

In comparison of frequency and percentage of pretest and post-test of infant feeding attitude scores among the primi mothers in the experimental and the control group revealed that- In experimental group: about 3 (16.67%%) of the primi mothers had positive for formula feeding and 8(44.44%) , 7 (38.89%) of the had neutral and positive for breast feeding attitude respectively , In control group : about 7 (38.89%%)

of the primi mothers had positive for formula feeding and 10(55.56%) , 1(5.56%) of the had neutral and positive for breast feeding attitude respectively , and the calculated chi-square value was 6.32 is more than the p value of p=0.05. So statistically there is a significant difference between experimental and control group

Comparison of mean, SD, mean difference and -t- valve of pretest and post-test attitude scores among the primi mothers between experimental and control group

N=18

assessment	Group				Mean difference	Student independent t-test
	Experimental		Control			
	Mean	SD	Mean	SD		
Pretest	50.89	4.81	52.44	5.72	1.55	t=0.88 p=0.14(NS)
Posttest	64.78	9.72	52.94	7.79	12.22	t=4.14 p=0.001***(S)

In pre-test: In the experimental group- the pre-test mean score was 50.89 with an SD of 4.81 and in the control group- in pre-test mean score 52.94 with an SD of 5.72 , the mean difference were 1.55 and t-value of 0.88 and p value p=0.14, so in pretest,

statistically there is no significant difference between experimental and control group. In post-test: In the experimental group- the post-test mean score was 64.78 with an SD of 9.72, and in the control group- post mean score 52.94 with and SD of 7.79 and the

mean difference were 12.22 and t-value of 4.14 and p value $p=0.001$. so in post-test, statistically there is a significant difference between experimental and

control group. It was tested using student independent t-test.

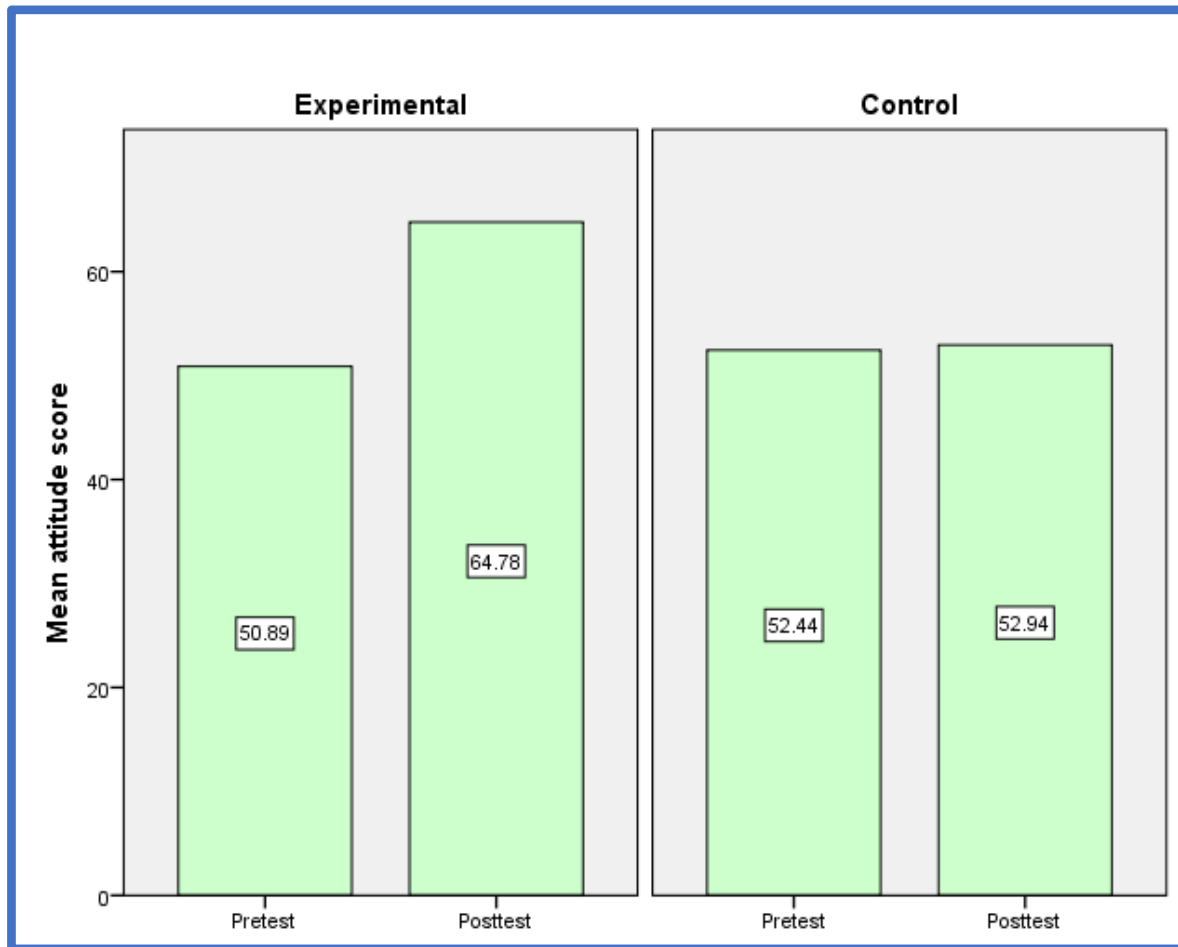


Fig -1: Simple bar with 2 standard error diagram compares the infant feeding attitude score between experimental and control group primi mothers

EFFICACY OF ANTENATAL NURSING EDUCATIONAL PROGRAM ON INFANT FEEDING ATTITUDE

Group	Assessments	Infant feeding attitude gain score			
		Maximum score	Mean attitude score	Percentage of attitude score	Percentage of attitude gain score
Experiment	Pretest	85	50.89	59.87%	16.34%
	Posttest	85	64.78	76.21%	
Control	Pretest	85	52.44	61.69%	0.59%
	Posttest	85	52.94	62.28%	

percentage of Infant feeding attitude score. Experimental group are having 16.34% of attitude gain score and control group are having 0.59% gain score, It shows the effectiveness of antenatal nursing educational program among experimental group.

V. CONCLUSION

- Shanees E.. A Study to Assess the Effectiveness of the Planned Teaching Program on Knowledge regarding Diet during Lactation among Primi Lactating

- mothers in selected community area, Satna. International Journal of Advances in Nursing Management. 2024;12(4):199-2. doi: 10.52711/2454-2652.2024.00044
- Aydın E, Dağ H, Yiğit O. Evaluation of Mothers' Sociodemographic Characteristics

- and Infant Feeding Attitudes During Pregnancy According to the Iowa Feeding Attitude Scale and Examining the Scale's Role in Determining Breastfeeding Duration. *Iberoam J Med.* 2024;6(1):10-16. doi: 10.53986/ibjm.2024.0003.
3. Vanvaguladevi J, Sumathi C, Jayanthi P et al./Assess the Knowledge and Attitude Regarding Breastfeeding among Primipara Mothers in Selected Hospital, Chengalpattu/Community and Public Health Nursing. 2023;8(2):45–47.
 4. Parashar, H. (2022). A descriptive study to assess the knowledge and practice related to breast feeding among mothers in selected hospitals at Bangalore Karnataka. *International Journal of Health Sciences*, 6(S6), 3175–3183. <https://doi.org/10.53730/ijhs.v6nS6.11187>
 5. Abdulahi, M., Fretheim, A., Argaw, A. *et al.* Adaptation and validation of the Iowa infant feeding attitude scale and the breastfeeding knowledge questionnaire for use in an Ethiopian setting. *Int Breastfeed J* 15, 24 (2020). <https://doi.org/10.1186/s13006-020-00269-w>
 6. Furaikh SSAI, Ganapathy T. First time expectant fathers' perspectives on breastfeeding. *MOJ Womens Health*. 2017;6(2):369-374. DOI: 10.15406/mojwh.2017.06.00152
 7. Patel, M., & Prajapati, S. (2016). A comparative analytic study of knowledge, attitude and practice of breast feeding in primi and multipara women at a tertiary care centre in Gujarat, India. *International Journal of Research in Medical Sciences*, 4(10), 4403–4407. <https://doi.org/10.18203/2320-6012.ijrms20163301>