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IMPACT OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING COMMON BOTTLE-FEEDING PROBLEMS IN INFANTS AMONG MOTHERS

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ABSTRACT

The current study has been undertaken to assess knowledge score regarding common bottle-feeding problems among mothers by structured teaching program in Phanda, Bhopal. The research design used for the study was pre-experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts- PART- I consisted of questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding common bottle-feeding problems among Mothers. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 25.0% of Mothers were having average knowledge regarding common bottle-feeding problems whereas 75.0% had good knowledge after post-test. It was suggested that nurses must educate mothers regarding common bottle-feeding problems.

Keyword- Structured teaching program, common bottle-feeding problem, mothers.

I. Introduction

Most often mothers find problems when bottle feeding their infants. Some of these problems are minor and can be rectified easily and with not much fuss and hassle. However, for major and health problems, your doctor should be the first one to be contacted. It is good to get educated before you start bottle feeding your child and this should be from a reliable and good source.

Do not forget that although breastfeeding is said to be natural and good since many years, it lacks some important ingredients for the right growth of mind and body of the infant. These are added to the formula feed as they are prepared scientifically and contain measured ingredients. **Common types of bottle-feeding problems**

- Turning away from the bottle.
- Gagging or fussing as the bottle's nipple nears their mouth.
- Being unable to latch/compress the bottle's nipple and express milk.
- Chewing on the bottle's nipple.
- Sputtering or coughing while feeding.

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II. Objective of the study

1. To assess the pre-test & post-test Knowledge score regarding common bottle-feeding problems among Mothers.
2. To assess impact of structured teaching program on knowledge regarding common bottle-feeding problems among Mothers.
3. To find out association between pre-test knowledge score regarding common bottle-feeding problems among Mothers with their selected demographic variables.

III. Hypotheses:

RH_0: There will be no significant difference between pretest & post-test knowledge score on common bottle-feeding problems among Mothers.

RH_1: There will be significant difference between pretest & post-test knowledge score on common bottle-feeding problems among Mothers.

RH_2: There will be significant association between pre-test score on common bottle-feeding problems among Mothers with their selected demographic variables.

IV. Assumption

1. Mothers may have deficit knowledge regarding common bottle-feeding problems.
2. Structured teaching program will enhance knowledge of Mothers regarding common bottle-feeding problems.

V. Methodology

An evaluative approach was used and pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 44 Mothers selected by Non probability convenient sampling technique. The setting for the study was Phanda, Bhopal. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after structured teaching program. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics.

VI. Analysis and interpretation

SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.
n = 44

S. No	Demographic Variables	Frequency	Percentage
1	**Age in Years**		
a.	21-26	11	25.0
b.	27-32	26	59.1
c.	33-38	6	13.6
d.	More than 38	1	2.3
2	**Educational Status**		
a.	No formal education	5	11.4
b.	Primary	6	13.6
c.	Secondary	15	34.1
d.	Higher secondary	17	38.6
e.	UG & PG	1	2.3
3	**Family income**		
a.	10000-15000	12	27.3
b.	150001-20000	19	43.2
c.	Above 20000	13	29.5
4	**Type of family**		
a.	Nuclear	29	65.9
b.	**Joint**	10	22.7
c.	Extended	5	11.4
5	**Previous knowledge related to common bottle-feeding problems**		
a.	Yes	37	84.1
b.	No	7	15.9

SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=44)	Frequency Percentage (%)
POOR (1-10)	37	84.1
AVERAGE (11-20)	7	15.9
GOOD (21-30)	0	0.0
TOTAL	44	100.0

The present table 2.1.1 concerned with the existing knowledge regarding common bottle-feeding problems among Mothers were shown by pre-test score and it is observed that most of the Mothers 37 (84.1%) were poor (01-10) knowledge & some Mothers have 7 (15.9%) were from average category.

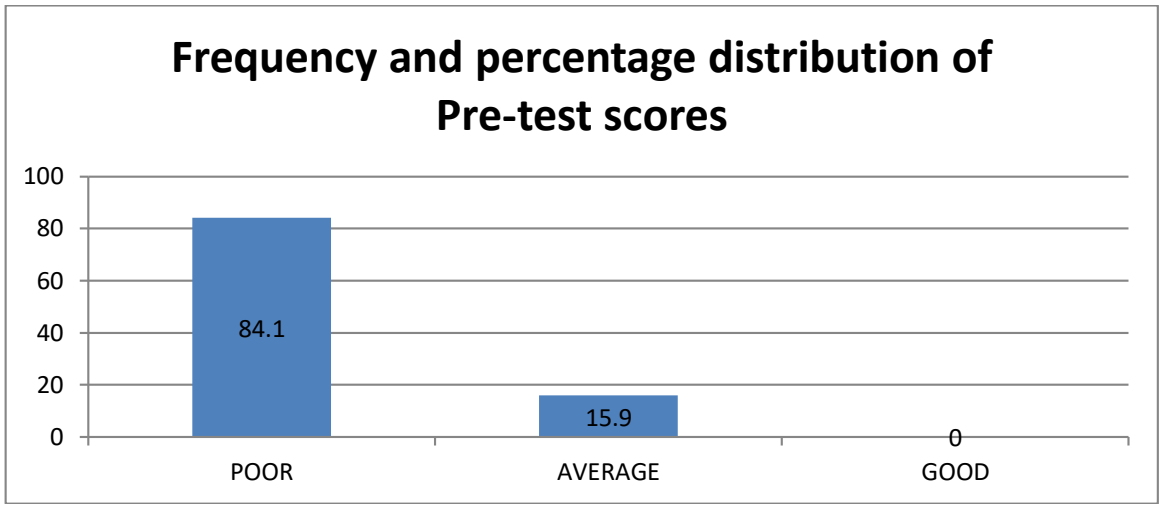

FIG.-2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects

Table-2.1.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Pre –test	**Mean ($\overline{X}$)**	**Std Dev (S)**
Pre-test score	**8.09**	**2.90**

The information regarding mean, percentage of mean and standard deviation of test scores in shown in table 2.1.2 knowledge in mean pre-test score was 8.09± 2.90 while in knowledge regarding common bottle-feeding problems among Mothers in Phanda, Bhopal.

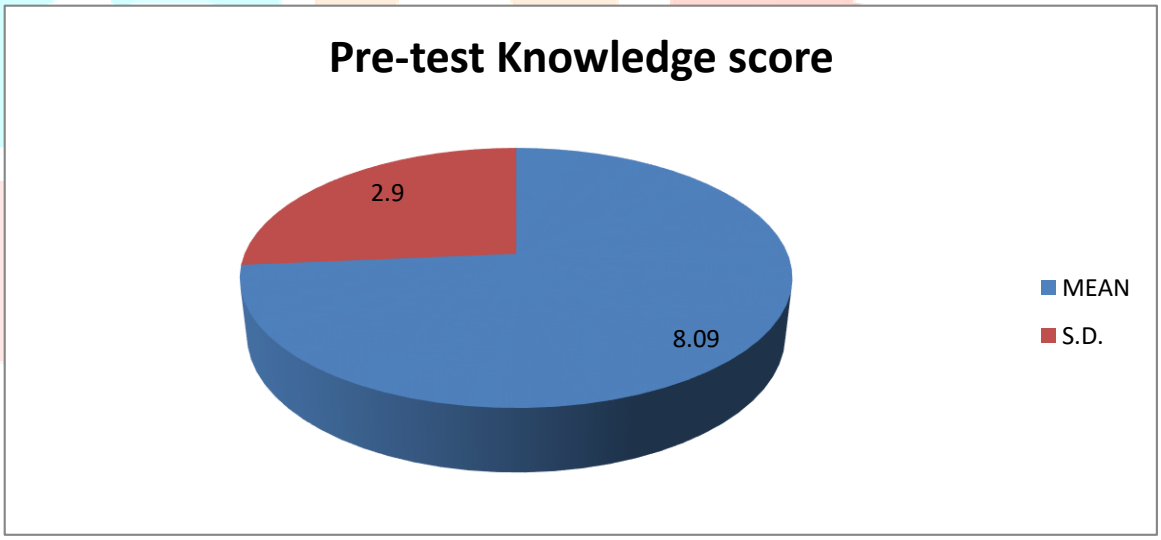

FIG.-2.1.1. - **Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores**

Table-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects:

Category and post-test Score	**Frequency (N=40)**	**Frequency Percentage (%)**
POOR(01-10)	0	0.0
AVERAGE (11-20)	11	25.0
GOOD (21-30)	33	75.5
TOTAL	44	100%

The present table 2.2.1 concerned with the existing knowledge regarding common bottle-feeding problems among Mothers was shown by post test score and it is observed that most of the mothers 33 (75.0%) were **GOOD** (21-30) knowledge & other Mothers have 11 (25.0%) category which are **AVERAGE** (11-20) posttest knowledge score in present study.

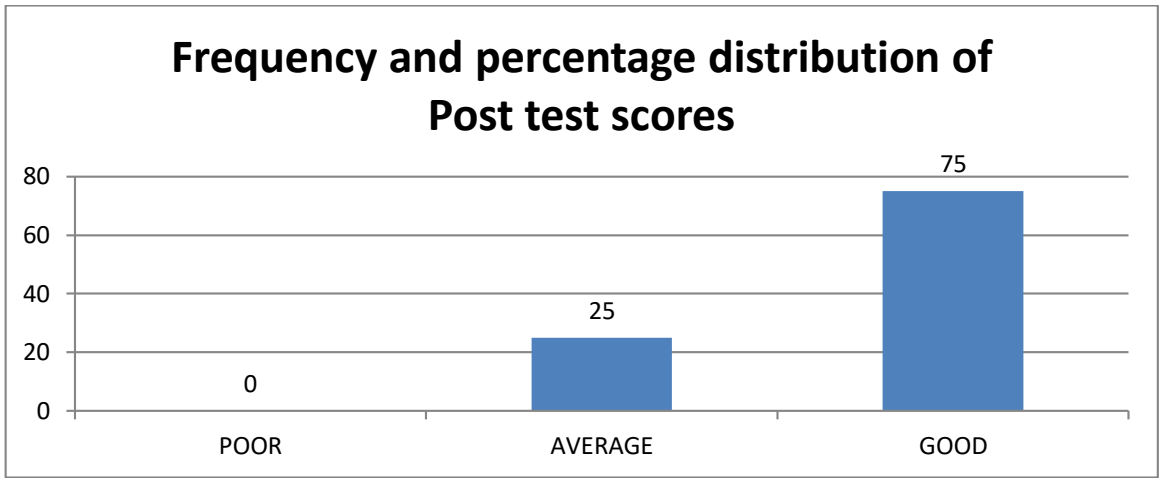

FIG.-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects

Table-2.2.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Test	Mean ($\overline{X}$)	Std Dev (S)
Post-test score	21.50	3.75

The information regarding mean, percentage of mean and SD of post test scores in shown in table 2.2.2 knowledge in mean post test score was 21.50 ± 3.75 while in knowledge regarding common bottle-feeding problems among Mothers in Phanda, Bhopal. Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill 2nd objective of the present study.

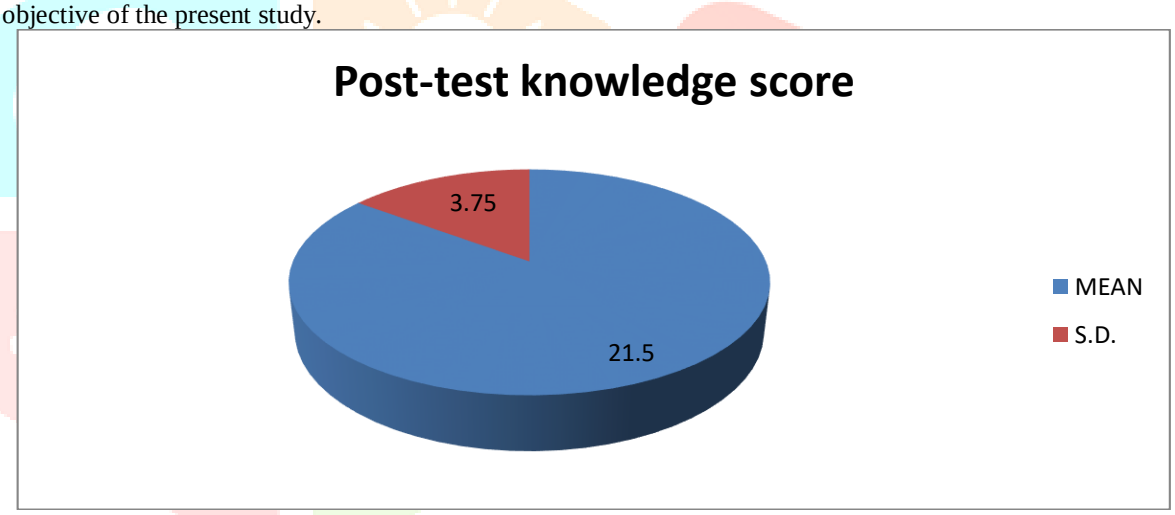

FIG.-2.2.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

TABLE 2.2.3: Impact of structured teaching program by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.

Knowledge Score of Mothers	Mean ($\overline{X}$)	S. D. (s)	Std. Error of Mean	D. F.	t-value	Significance
Pre-test	**8.09**	**2.90**	0.71	43	**-19.05**	P<0.05
Post-test	**21.50**	**3.75**				

When the mean and SD of pre-test & post-test were compared & 't' test was applied. It can be clearly seen that the 't' value was -19.05 and p value was 0.05 which clearly show that structured teaching program was very effective in enhancing the knowledge of Mothers.

SECTION-III Association of knowledge scores between test and selected demographic variables:

Table- 3.1 Association of age of Mothers with pre-test scores:

Age	Test scores			Total
(in years)	**POOR (1-10)**	**AVERAGE (11-20)**	**GGOD (21-30)**	
21-25	10	1	0	**11**
26-30	20	6	0	**26**
31-35	6	0	0	**6**
Above 36	1	0	0	**1**
Total	**37**	**7**	**0**	**44**
	X= 2.70	p>0.05 (Insignificant)		

The association of age & test scores is shown in present table 3.1. The probability value for Chi-Square test is 2.70 for 3 DF which indicated insignificant value (p>0.05). Hence, it is identified that there is insignificant association between age & test scores. Moreover, it is reflected that age isn't influenced with current problem.

Table- 3.2 Association of educational status with pre-test scores:

Educational status	Test scores			Total
	POOR (1-10)	**AVERAGE (11-20)**	**GOOD (21-30)**	
No formal	5	0	0	**5**
Primary	4	2	0	**6**
Secondary	12	3	0	**15**
Higher sec.	15	2	0	**17**
UG & PG	1	0	0	**1**
Total	**37**	**7**	**0**	**44**
	X= 2.90	p>0.05 (Insignificant)		

The association of educational status & test score is shown in present table 3.2. The probability value for Chi-Square test is 2.90 for 4 degrees of freedom which indicated educational status and test scores. Moreover, it is reflected that educational status isn't influenced with present problem.

Table- 3.3 Association of family income with pre-test scores:

Family income	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	GOOD (21-30)	
10000-15000	10	2	0	**12**
15001-20000	16	3	0	**19**
Above 20000	11	2	0	**13**
Total	**37**	**7**	**0**	**44**
	X=0.008	p>0.05 (Insignificant)		

The association of family income & test score is shown in present table 3.3. The probability value for Chi-Square test is 0.008 for 2 degrees of freedom which indicated family income and test scores. Moreover, it is reflected that family income isn't influenced with present problem.

Table- 3.4 Association of types of family with pre-test scores:

Types of family	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	GOOD (21-30)	
Nuclear	25	4	0	**29**
Joint	7	3	0	**10**
Extended	5	0	0	**5**
Total	**37**	**7**	**0**	**44**
	X= 2.52	p>0.05 (Insignificant)		

The association of types of family & test score is shown in present table 3.4. The probability value for Chi-Square test is 2.52 for 2 degrees of freedom which indicated types of family and test scores. Moreover, it is reflected those types of family isn't influenced with present problem.

Table- 3.5 Association of previous knowledge related to common bottle-feeding problems with pre-test scores:

Previous Knowledge	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	GOOD (21-30)	
Yes	3	2	0	**5**
No	34	5	0	**39**
Total	**37**	**7**	**0**	**44**
	X= 2.44	p>0.05 (Insignificant)		

The association of previous knowledge & test scores is shown in present table 3.5. The probability value for Chi-Square test is 2.44 for 1 degrees of freedom which indicated previous knowledge & test scores. Moreover, it is reflected that previous knowledge isn't influenced with current problem.

VII. Results

The result of this study indicates that there was a significant increase in post-test knowledge scores compared to pre-test scores of common bottle-feeding problems. The mean percentage knowledge score was observed 8.09± 2.90 in pre-test & after implementation of structured teaching program post-test mean percentage was observed with 21.50± 3.75.

VIII. Conclusion

Thus, after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between pre-test knowledge score with post-test knowledge score among Mothers at ($P<0.05$) is being accepted.
Furthermore, structured teaching program related to common bottle-feeding problems among Mothers may consider as an effective tool when there is a need in bridging & modifying knowledge.

IX. Limitations

- This was limited to Phanda, Bhopal.
- This was limited to 44 Mothers.

X. References

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