

A Quasi Experimental Study to Assess the Effectiveness of Video Assisted Teaching on Home Care Management of Preterm Babies among Mothers at Selected Area of Kolar

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Abstract:

childrens are born too early according to health care professional preterm is defined as babies who are not in their mothers uterus for full term 38-42 weeks and also those birth less than the 37 weeks of pregnancy is called preterm birth and considered as preterm babies.

Aim of the study: To assess the effectiveness of video assisted teaching on home care management of preterm babies among mothers at selected areas of kolar.

Material and Method: A pre- experimental study was carried out among 60 mothers of selected areas of kolar.

Non probability sampling technique was used to collect the samples .The study was conducted by using structured knowledge questionnaires' for data collection. Study was analysed by using descriptive and inferential statistics.

Result: The study included 60 mothers from selected areas of kolar.A video assisted teaching was implemented to assess it's effectiveness in improving knowledge regarding home care management of preterm babies. The pre-test knowledge score was 60(SD=4.77)which significantly improved to 20.91 in the posttest ($t=18.63$ $p<0.05$) The findings indicate a statistically significant improvement in knowledge towards home care management of preterm babies on following video assisted teaching strategies.

Conclusion: The study found that a video assisted teaching significantly improved knowledge of mothers towards home care management of preterm babies.

KEY WORDS: preterm, home care management, knowledge

Introduction:

Child's growth and development start after the conception, inside the mother's womb. Postnatal health of an infant largely depends on the gestational age at the time of birth¹.

Preterm children are born too early. According to health care professional preterm is defined as babies who are not in mother uterus for full term of 38-42 weeks and also those births less than the 37 week if pregnancy are called premature birth and such a baby is considered preterm.

These preterm babies are classified into four subtypes according to weeks of pregnancy.

1. Late preterm babies-delivered amongst between 34 \$ 36

2. Moderately preterm babies- delivered amongst between 32-34 weeks.
3. Very preterm babies-delivered amongst lesser than 28-32 weeks.
4. Extremely preterm babies-delivered earlier than 28 weeks.⁴

The characteristic feature of Premature babies are small, with low birth weight (generally <2500 g), a short crown heel length (<47cm) and small head circumference (<32cm) and chest circumference (<30cm). The babies may be covered with lanugo hair with very little vernix caseosa. Their skin is thin, gelatinous, and appears pink. They have deficient ear cartilage, small or no breast nodules and no sole creases. Generally they display very little activity and are hypertonic with weak or absent crying. The external genitalia may not be fully developed. They may have sluggish or absent neonatal reflexes and may not have suck swallow coordination.⁶

WHO recommendations on interventions to improve preterm birth outcomes provide specific recommendations for example Thermal care, (e.g. Kangaroo Mother Care), Feeding support, hygienic cord and skin care, and early detection and treatment of infections and complications

As the relationship between the baby and the mother is well known, there is no better time to begin the home care management of the baby than while it is still a fetus. Various maternal factors such as maternal age, parity, spacing between mothers, her health and nutritional status, and home care management during pregnancy will have effect on growth and well-being of fetus.⁸ Mothers as the principal care-givers, may suffer from culturally-grounded, psycho emotional disturbances after giving birth to a preterm infant, the quality of Information, education, and communication through multimodal intervention program enhances parental role and decrease parenteral stress

Statement of the problem

“A quasi experimental study to assess the effectiveness of video assisted teaching on home care management of preterm babies among mothers at selected area of kolar .”

Objectives:

1. To assess the knowledge on home care management of preterm babies among mothers,
2. To evaluate the effectiveness of planned video assisted teaching program on the home care management of preterm babies in Experimental group,
3. To find the association between knowledge regarding home care management of preterm babies among postnatal mothers with selected demographic variables

Materials Methods:

The main aim of the study was to assess the knowledge regarding home care management of preterm babies at selected areas of kolar. The research design selected for the study was pre –experimental study with one group pre-test-post-test design. The knowledge of the mothers regarding home care management of pre term babies is assessed by using an structured knowledge questionnaire and an rating scale. Formal permission was obtained from the leelavathy childrens hospital kolar, SNR hospital, kolar. the study was conducted among 60mothers of preterm babies and primi mothers ,who were selected by using an non probability sampling technique.

RESULTS

Analysis is a detailed examination of the elements or structure of something. In research, analysis means

commutation of certain measures along with searching for patterns of relationship that exist among data group.

This chapter deals with the analysis and the interpretation of data obtained from sixty mothers of preterm babies to assess the Effectiveness of Video Assisted Teaching on Home Care Management of Preterm Babies among Mothers at Selected Area of Kolar.”

Descriptive and inferential statistics were used to analyze the data that was collected. The Findings of data has been finalized and organized in accordance with the plan for data analysis. These are presented under the following sections.

Section-I : Demographic profile of mothers of preterm babies.

Section-II : Knowledge of mothers of preterm babies regarding home care management of preterm babies in pretest and posttest.

Section-III : Comparison of pretest and posttest Knowledge regarding home care management of preterm babies among mothers of preterm babies.

Section-IV : Association of the pretest Knowledge scores of mothers of preterm babies with the selected demographic variables.

SECTION – I

1. Previous experience of handling preterm baby	Frequency	Percentage
Yes	2	3.3
No	58	96.7
Total	60	100

Table-6 and fig-8 shows distribution of mothers of preterm babies by Previous experience of handling preterm baby, majority of mothers 96.7% are not handled and only 3.3% and handled preterm baby

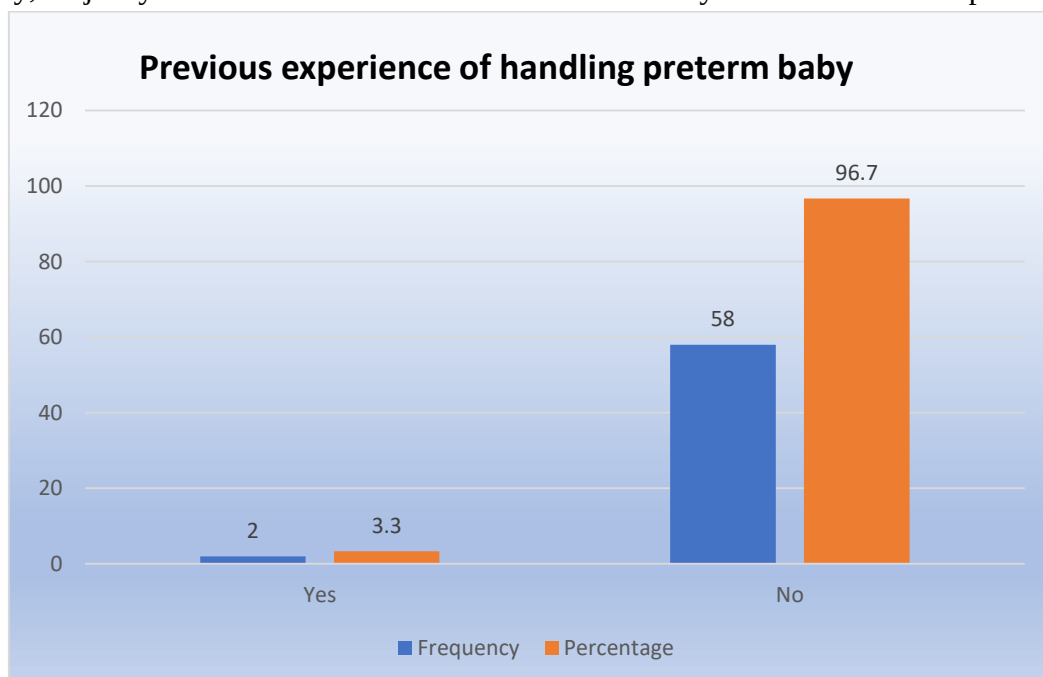


Fig 8: frequency and percentage distribution of mothers of preterm babies by Previous experience of handling preterm baby

Table – 7: Distribution of mothers of preterm babies according to type of residence
N=60

2. Type of residence	Frequency	Percentage
Rural	35	58.4
Urban	25	41.6
Total	60	100

Table-7 and fig-9 shows distribution of mothers of preterm babies by type of residence, majority of mothers 58.4 % are from rural and 41.6 % are from urban

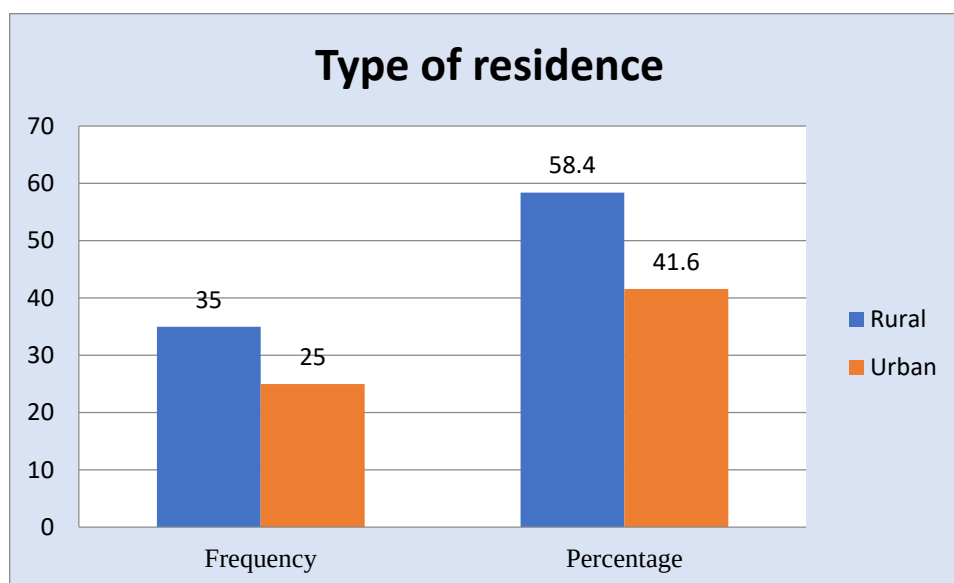
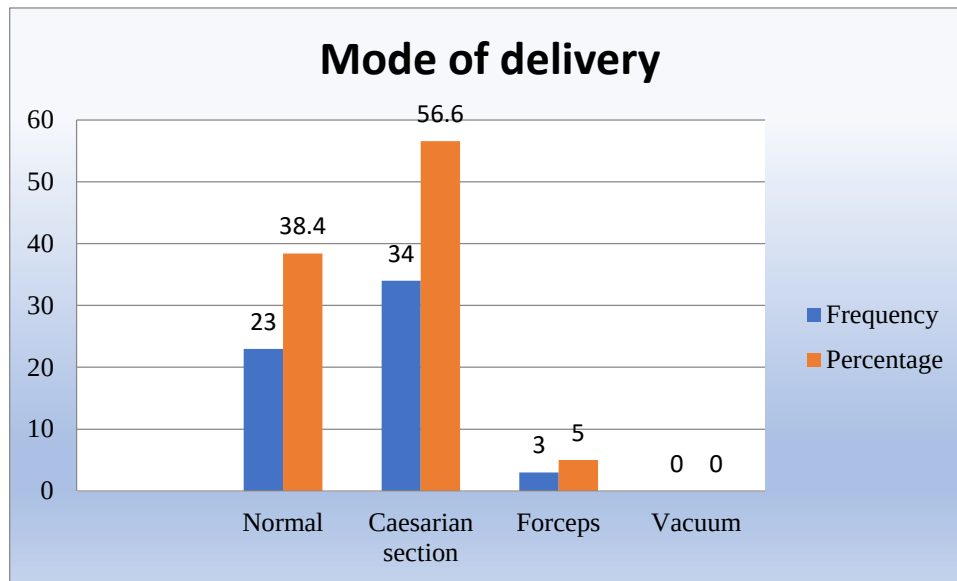


Fig 9 Frequency and percentage distribution of mothers of preterm babies by type of residence

Table – 8: Distribution of mothers of preterm babies according to mode of delivery
N=60

Mode of delivery	Frequency	Percentage
Normal	23	38.4
Caesarian section	34	56.6
Forceps	03	5
Vacuum	00	0
Total	60	100

Table-8 and fig-10 shows distribution of mothers of preterm babies by mode of delivery, majority of mothers 56.6 % are caesarian, 38.4% are normal delivery and only 5% are vacuum delivery.



SECTION II: KNOWLEDGE OF MOTHERS OF PRETERM BABIES REGARDING HOME CARE MANAGEMENT OF PRETERM BABIES.

TABLE – 9: Pretest and posttest knowledge level of mothers of preterm babies N=60

Knowledge level	Pre test		Post test	
	Frequency	Percent	Frequency	Percent
a.Inadequate knowledge	45	75	0	0.0
b. Moderate knowledge	13	21.7	8	13.3
c.Adequate knowledge	2	3.3	52	86.7
Total	60	100	60	100

Table 9 and fig-11 shows distribution of mothers by pretest and posttest knowledge level, in pretest 75% had inadequate knowledge and 21.7% had moderate knowledge and 3.3% had adequate knowledge, whereas in posttest 86.7% had adequate knowledge and 13.3% had moderate knowledge.

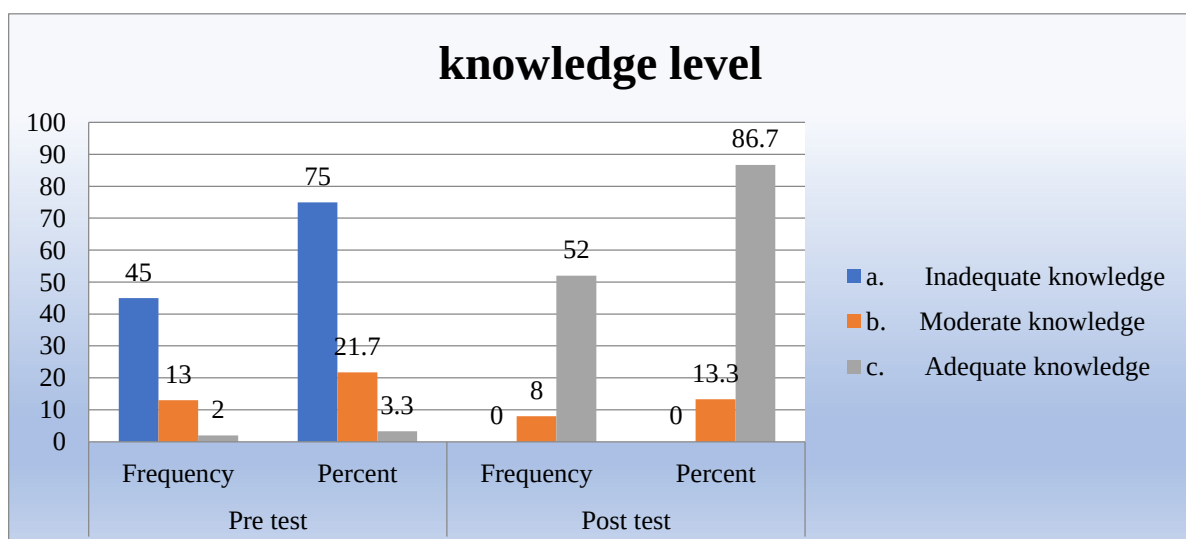


Fig-11 Pretest and posttest knowledge level of mothers of preterm babies

TABLE – 10: Mean, Mean percentage and standard deviation for the pre test knowledge of mothers of preterm babies
N=60

Sl. No.	Knowledge aspects	No. of Items	Max Score	Mean	Mean %	SD
1	Definition and causes	5	5	2.33	46.6	1.28
2	Symptoms	3	3	1.03	34.3	1.03
3	Maintenance of stable body temperature	5	5	2.78	55.6	1.52
4	Breast feeding, maintenance of nutrition	5	5	1.91	38.2	0.57
5	Eye care and cord care.	7	7	3.31	47.2	2.78
6	Immunization	3	3	1.38	46	0.36
7	Elimination need of the preterm baby	4	4	2.18	54.5	1.36
8	Prevention of infection and follow up	4	4	1.46	36.5	0.34
Overall		36	36	16.35	45.41	6.07

Table 10 and fig-12 shows the overall knowledge scores of mothers of preterm babies were found to be mean percent is 45.41% with standard deviation is 6.07

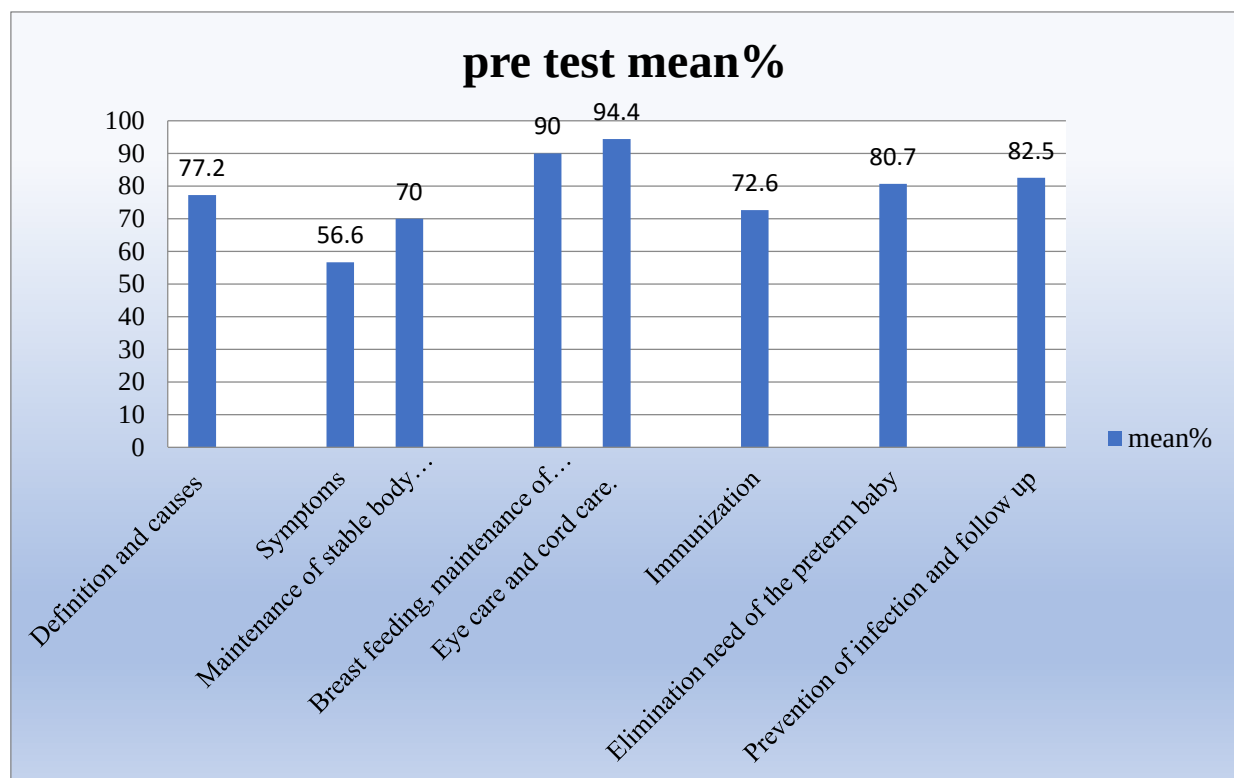


Fig 12: mean percentage of pre test knowledge scores of mothers of preterm babies

TABLE – 11: Mean, Mean percentage and standard deviation for the post test knowledge of mothers of preterm babies

N=60

Sl. No.	Knowledge aspects	No. of Items	Max Score	Mean	Mean %	SD
1	Definition and causes	5	5	3.86	77.2	1.07
2	Symptoms	3	3	1.7	56.6	0.97
3	Maintenance of stable body temperature	5	5	3.5	70	0.71
4	Breast feeding, maintenance of nutrition	5	5	4.5	90	0.43
5	Eye care and cord care.	7	7	6.61	94.4	0.36
6	Immunization	3	3	2.18	72.6	0.38
7	Elimination need of the preterm baby	4	4	3.23	80.7	0.64
8	Prevention of infection and follow up	4	4	3.3	82.5	0.55
Overall		36	36	28.86	80.1	4.77

Table 11 and fig-13 shows the overall knowledge scores of mothers of preterm babies were found to be mean percent 80.1% with standard deviation 4.77 in post-test

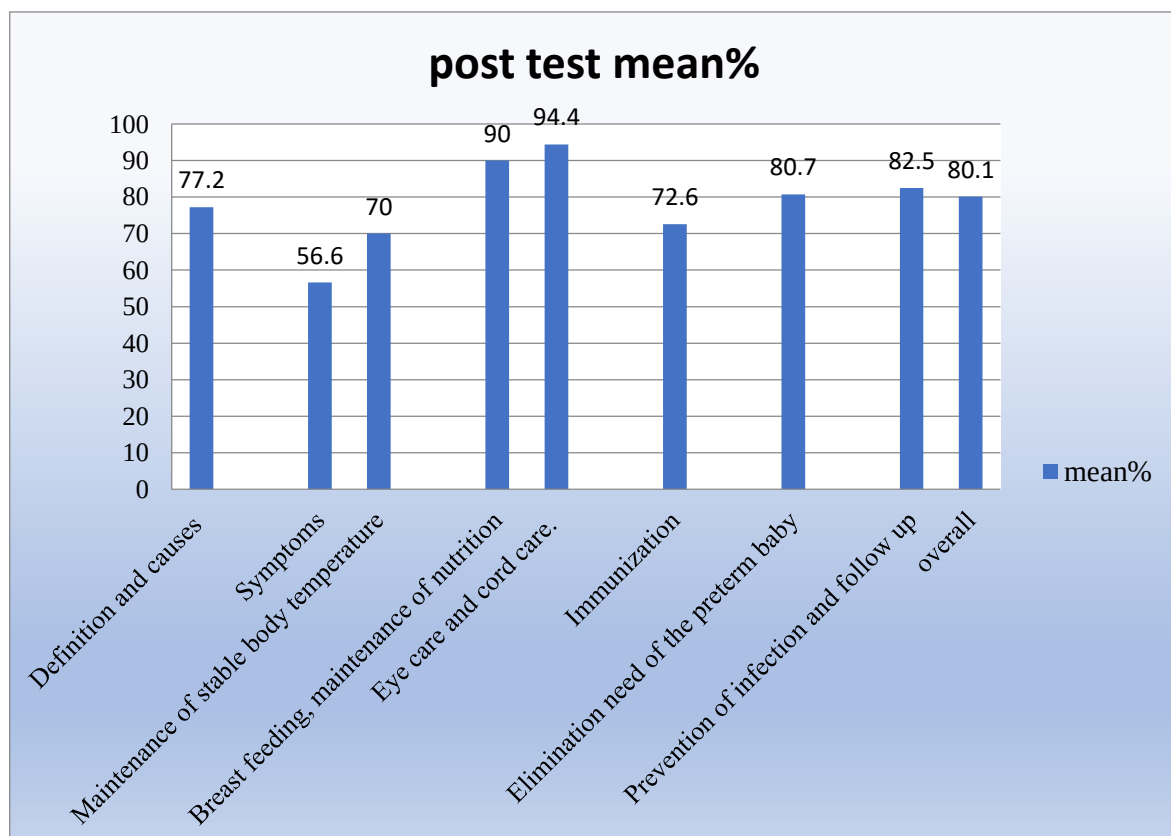


Fig 13: mean percentage of posttest knowledge scores of mothers of preterm babies

SECTION III: COMPARISON OF PRE TEST AND POST TEST KNOWLEDGE REGARDING HOME CARE MANAGEMENT OF PRETERM BABIES

Table 12: Comparison of pretest and posttest knowledge scores of knowledge of mothers of preterm babies regarding home care management of preterm babies

N=60

Sl. No.	Knowledge aspects	Pre test		Post test		Mean difference	t Value	Df	Inference
		Mean	S D	Mean	S D				
1	Definition and causes	2.33	1.28	3.86	1.07	1.53	9.08	59	S
2	Symptoms	1.03	1.03	1.7	0.97	0.67	3.45	59	S
3	Maintenance of stable body temperature	2.78	1.52	3.5	0.71	0.72	2.95	59	S
4	Breast feeding, maintenance of nutrition	1.91	0.57	4.5	0.43	2.59	19.14	59	S
5	Eye care and cord care.	3.31	2.78	6.61	0.36	3.3	14.37	59	S
6	Immunization	1.38	0.36	2.18	0.38	0.8	10.43	59	S
7	Elimination need of the preterm baby	2.18	1.36	3.23	0.64	1.05	6.77	59	S
8	Prevention of infection and follow up	1.46	0.34	3.3	0.55	1.84	14.80	59	S
Overall		16.38	6.07	28.88	4.77	12.5	18.63	59	S

Table 12 and fig 14 shows The obtained t value 18.63 is greater than the table value at 0.05 level of significance Therefore t value is found to be significant it means there is gain in knowledge level of mothers of preterm babies this supports that video Assisted teaching program on home care management of preterm babies is effective in increasing the knowledge of mothers of preterm babies.

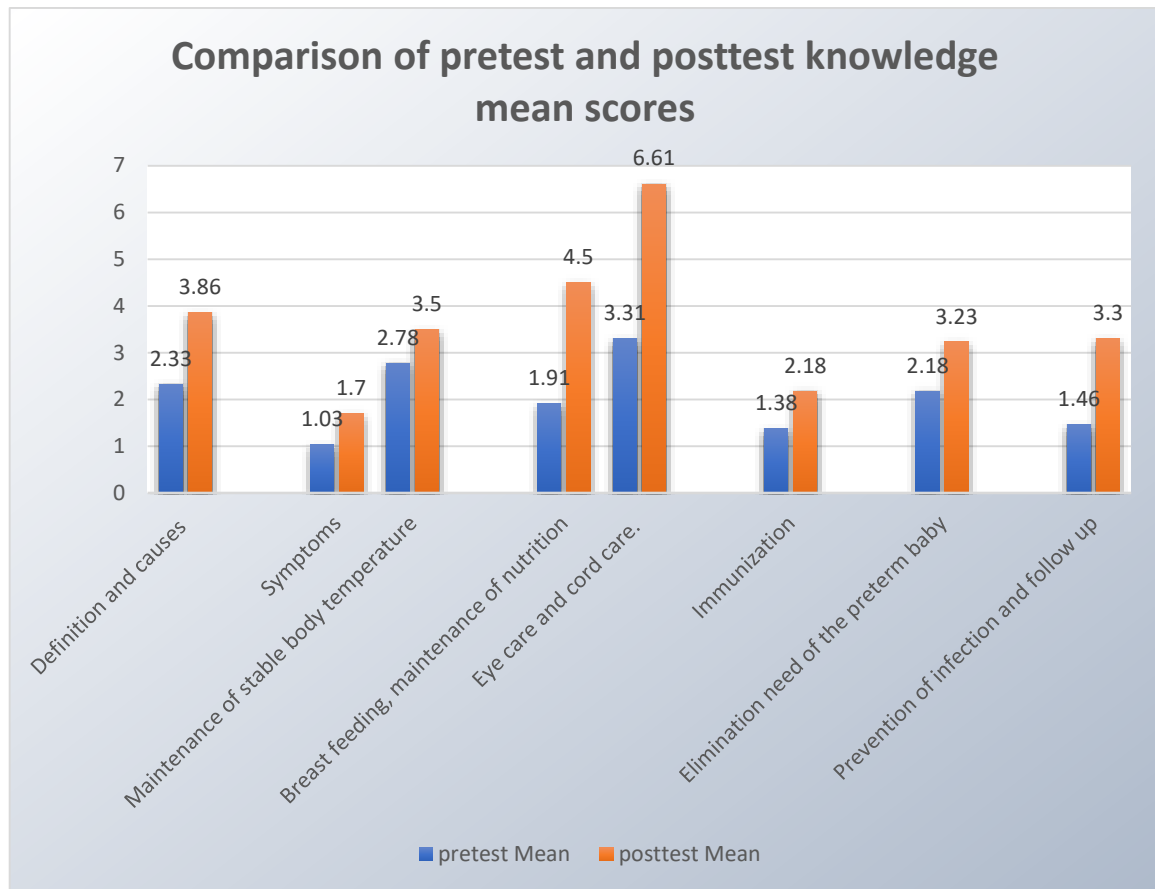


Fig 13: Comparison of pretest and posttest knowledge scores of knowledge of mothers of preterm babies regarding home care management of preterm babies

SECTION IV: ASSOCIATION OF PRE TEST KNOWLEDGE SCORES OF MOTHERS OF PRETERM BABIES WITH SELECTED DEMOGRAPHIC VARIABLES

Table – 13: Association of pretest knowledge scores of Postnatal mothers with selected demographic variables

N= 60

Variables	Below Median	Median and above	Chi square	Df	Table Value	Inference
Age in years						
18-22	28	13	0.556	3	7.82	NS
23-27	8	4				
28-32	2	2				
33 and above	2	1				
Religion						
Hindu	26	15	1.083	2	5.99	NS
Muslim	4	2				
Christian	7	6				
Other	0	0				

Educational status						
Primary education	19	12	3.94	3	7.82	NS
Higher secondary	9	6				
Graduate and above	2	6				
Illiterate	4	2				
Occupation						
Housewife	18	11	1.623	3	7.82	NS
Private employee	11	3				
Government employee	8	6				
coolie	2	1				
Family income						
Less than Rs.5000	7	4	0.861	3	7.82	NS
Rs.5001- Rs.10000	14	10				
Rs10001- Rs.15000	8	8				
More than Rs.15000	6	3				
Previous experience of handling preterm baby						
Yes	1	1	0.196	1	3.84	NS
No	38	20				
Type of residence						
Rural	22	13	0.561	1	3.84	NS
Urban	18	7				
Mode of delivery						
Normal	17	6	2.082	2	5.99	NS
Caesarian section	22	12				
Forceps	1	2				
Vacuum	0	0				

Table13: show that there is no significant association between pretest knowledge score of mothers of preterm babies and sociodemographic variable such as age, religion, education, occupation, family income, type of residence, previous handling of preterm baby and type of delivery.

Discussion

The present study aimed to evaluate the effectiveness of video assisted teaching on home care management of pre term babies among mothers at selected areas of kolar. The study assessed pre-existing knowledge and home care management, measured the impact of VSD, and examined association with selected socio-demographic variables. The findings provide valuable insight into the role of educational intervention in improving the awareness , care of preterm babies among preterm mothers.

Key Findings and Interpretation

The results revealed a significant improvement in both knowledge and attitude following the STP intervention. The mean pre-test knowledge score was 45.41% (SD = 6.07), which significant enhancement

significantly increased to 80.01 % (SD = 4.77) in the post-test, with a mean difference of 20.91. The paired t-test value was 18.63 ($p < 0.05$), indicating a statistically significant difference in knowledge. Similarly, the demographic variables are mothers of preterm babies 68.3% belong to 18-22 years of age, mothers of preterm babies 68.3 % to hindu mothers, mothers of preterm babies 51.7% are primary education, mothers of preterm babies 48.4% are housewives, mothers of preterm babies 96.7% are not had previous experience of handling preterm babies, mothers of preterm babies 58.4% belongs to rural area, mothers of preterm babies 56.6 % had caesarean section and These findings confirm that the VSD was effective in enhancing students' knowledge and fostering a more positive attitude towards home care management of preterm babies.

The results align with previous studies that have explored the effectiveness of educational interventions on home care management of preterm babies. A similar study conducted in selected hospitals of silvasa, Dadra and nagar haveli the result shows that t test was conducted to assess difference between the area wise score value of pretest and posttest. Thus, the difference observed in the mean score value of pretest and posttest were true difference and not by chance.

That an educational program significantly improved knowledge and attitudes regarding home care management of preterm babies, emphasizing the importance of kangaroo mother care in promoting babies health. Another study by S.Manoranjitham who assessed effectiveness of learning package on knowledge and practice in care of preterm babies among postnatal mothers in selected neonatal intensive care units the findings shows that there is no significant association of pretest level of knowledge score with their selected demographic variables such as age of the mother, educational status, maternal illness during antenatal period, gestational age and birth weight

Strengths and Limitations

One of the key strengths of this study is that it focused on **nursing students**, who are future healthcare professionals and can further disseminate knowledge about menstrual cups in their practice. Additionally, the **use of a structured teaching program (STP)** ensures a **standardized and systematic approach** to delivering information, increasing its effectiveness. The **large sample size (N = 220)** strengthens the reliability of the findings.

However, the study has some limitations. It was **conducted in selected nursing colleges in Kolar**, limiting the generalizability of the findings to a broader population. Additionally, the study **assessed immediate post-test improvements** but did not include a follow-up to evaluate knowledge retention and long-term attitude changes. Future research should consider **longitudinal studies** to determine the sustained impact of educational interventions on menstrual health awareness.

Implications and Recommendations

The findings of this study highlight the importance of home care management preterm babies in improving the effectiveness of home care management. Given the significant improvement in knowledge and attitude scores, Video Assisted teaching should be integrated into nursing curricula to ensure that future mothers of preterm babies are well educated others about home care management of preterm baby care practices.

Additionally, public health initiatives should focus on breaking myths and misconceptions surrounding home care management of preterm babies through community-based interventions. Nursing students, as healthcare educators, can play a vital role in advocating for managing preterm babies at home,

emphasizing their cost-effectiveness, environmental benefits, and health advantages of health care professionals. Future research should explore the barriers home care management of preterm babies and assess the long-term impact of educational interventions across diverse populations.

Conclusion

The study demonstrated that a Video Assisted Teaching (VSD) significantly improved antenatal and postnatal mother's knowledge and attitudes regarding home care management of preterm babies. The statistically significant findings emphasize the need for education-based interventions to enhance home care management of preterm babies, particularly among mothers.

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