



**EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME
REGARDING UMBILICAL CORD BLOOD BANKING ON KNOWLEDGE AND
ATTITUDE AMONG STAFF NURSES IN SELECTED HOSPITAL OF VADODARA**

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ABSTRACT

Introduction - Motherhood task is the most honorable occupation and need skills in this world. Growth of first generation of a nation in the hands of mothers.1 Babies truly are gifts given to us by God. A new born baby needs more care and love from his/her mother and family. Study was carried out to assess the effectiveness of video assisted teaching regarding umbilical cord blood banking on knowledge and attitude of staff nurses. An evaluative research approach was used with pre-experimental one group per- test-posttest design. 60 staff nurses were selected as sample with convenient sampling technique. Data was collected with structured knowledge questioner and attitude lickert scale. **Results** – research study findings revealed that 37 (61.67%) of respondent had inadequate knowledge in pretest and 15 (25%) had moderate knowledge and only 8 (13.33%) had adequate knowledge on umbilical cord blood banking. In posttest 12 (20%) of respondents had moderate knowledge and majority of the respondents 31 (51.66%) had adequate knowledge. The mean score before VAT was 33.71, with standard deviation 15.06. The Mean score percentage was 42.16 computed with after VAT attitude and it was found to be the mean score was 64.28, with standard deviation 8.48. there was statistically significant association between Previous knowledge and Posttest knowledge and no any statistically significant association found between the attitude of staff nurses umbilical about cord blood banking **Conclusion** -Video

assisted teaching programme regarding umbilical cord blood banking has improved the knowledge and attitude of staff nurses. Researcher strongly recommended nursing health professionals need to be sensitized regarding the cord blood banking important in the current health care settings.

Keywords: Effectiveness, Video Assisted Teaching Programme, Umbilical Cord Blood Banking, Knowledge, Attitude. Staff Nurses

INTRODUCTION

Motherhood task is the most honorable occupation and need skills in this world. It is the stage where the women meet so many responsibilities to take care of her child. Growth of first generation of a nation in the hands of mothers [1]. As parents we never stop to care, adore and love our newborn babies. Babies are precious, as mom and dad it's a must that they take good care of baby [2].

The placenta and the umbilical cord itself are one of the richest sources of stem cells. When mother gives birth, the blood that remains in the placenta and umbilical cord is referred as cord blood. This particular blood contains numerous hematopoietic stem cells that have the ability to differentiate into other cells and the ability to self-degenerate Stem cells from cord blood are much easier to get because they are readily obtained from the cord and the placenta at the time of delivery [3].

Since the first human cord blood transplant, performed 20 years ago, cord blood banks have been established worldwide for the collection and cryopreservation of cord blood for allergenic hematopoietic stem

cell transplant. A global network of cord blood banks and transplant centers has been established for a common inventory and study of clinical outcomes [4].

In India, around 1000 patients require stem cells transplants, every year, but only around 200 patients are receiving this treatment annually probably due to non-availability of suitable matches [5].

Through the personal experience of the researcher during the clinical posting in Maternity Home felt that most of the women have inadequate knowledge regarding cord blood banking and its usefulness. They were seeking information from their health care providers. But the researcher found that even the staff nurses were unaware and having inadequate knowledge regarding cord blood banking.

METHODS AND MATERIALS [6-9] -

Study area- the researcher found 60 staff nurses working at selected hospital, Vadodara. These sites were chosen due to its convenience for current study.

An evaluative approach with pre-experimental one group pre-test-posttest design is used in this study to evaluate the

effectiveness of VAT on umbilical cord blood banking among staff nurses. Population comprised of Staff nurses who are working in selected hospitals of vadodara. The data collection period was 24/10/2020-22/11/2020.

Staff nurses who are available during the period of data collection. Staff nurses who understand Hindi and English the study excluded staff nurses who are not willing to participate in this study. Staff nurses who are on leave and sick during the time of data collection. The sample size selected for the present study was 60 staff nurses by using non-Probability convenient sampling technique. Sample size was determined by statistical formula with 5 % error margin. The data collection period was 24/10/2020-22/11/2020. The data was collected with the help of self-structured questionnaire and 5-point Likert scale. The questionnaire was including demographic data (6 question) umbilical cord blood banking (24 question) and Likert scale 16question. data were analysis with descriptive and inferential statistics. Analysis and interpretation of the data was done by descriptive and inferential statistics.

RESULTS

In the demographic variables, Majority of the Staff nurses belong to age 65% of the Staff nurses were in the age group of 26 -31 years of age, 28% were in 262-25 years of age, 7% were in the age group of 31-

37years and no one were above 37 years. Out of 60 staff Nurses 46(77%) of the staff nurses were Female, 14(23%) Were Male. Out of 60 staff Nurses 28(47%) of the staff Nurses were GNM in education, 19(32%) were B.Sc. Nursing, 13(22%) were Post Basic B.Sc., Majority of staff Nurses 37(61.76%) have 1-5year working experience. 19 (31.64%) have 6-10 years working experience and only 4(6.67%) have <1year working experience., Out of 60 staff Nurses 35(58%) were working in another department. Only 25(42%) were working in Labour room/OBG ward & NICU. Majority of nurses 35(58%) have previously heard about cord blood banking only 25(42%) have no knowledge about Cord blood banking.

Effectiveness of video assisted teaching on knowledge and attitude about umbilical cord blood banking-

Table 1 and Diagram 1, showed that the knowledge scores of staff nurses regarding umbilical cord blood banking. The result indicated that 37 (61.67%) of respondent had inadequate knowledge in pretest and 15 (25%) had moderate knowledge and only 8 (13.33%) had adequate knowledge on umbilical cord blood banking. In posttest 12 (20%) of respondents had moderate knowledge and majority of the respondents 31 (51.66%) had adequate knowledge. Hence H1 was accepted. So there was significant difference between pretest and

posttest of knowledge scores on umbilical cord blood banking.

Table 2 shows that Overall maximum practice Score of Staff nurse was 80. The mean score before VAT was 33.71, with standard deviation 15.06 and range 52. The Mean score percentage was 42.16 computed with after VAT attitude and it was found to be the mean score was 64.28, with standard deviation 8.48 and range from 47-76. The Mean score percentage was computed and it was found to be 64.28%. From the above results it was found that the sampled subject's attitude regarding umbilical cord blood banking is improved.

Association between posttest level of knowledge score and socio-demographic data

The chi-square test was resulted to be significant at 0.05 level ($p=12.59$). So, there is no statistically significant association between age and Posttest knowledge. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). So, there is no statistically significant association between gender and Posttest knowledge. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). So, there is statistically significant association between Education Qualification and Posttest knowledge. The chi-square test was resulted to be

significant at 0.05 level ($p=5.99$). So, there is no statistically significant association between Working Experience and Posttest knowledge. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). So, there is statistically significant association between Previous knowledge and Posttest knowledge.

Association between posttest level of attitude score and socio-demographic data-

The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). Therefore, there is no statistically significant association between Gender and Posttest attitude. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). Accordingly, there is no statistically significant association between Education Qualification and Posttest attitude. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). There is no statistically significant association between Working Experience and Posttest attitude. The chi-square test was resulted to be significant at 0.05 level ($p=5.99$). So, there is statistically significant association between previous knowledge and Posttest attitude. The chi-square test was resulted to be significant at 0.05 level ($p=12.59$). So, there is no statistically significant association between age and Posttest attitude.

Table 1: Pretest and post test knowledge score regarding umbilical cord blood banking

Aspect of knowledge	Pre-test		Post-test	
	Frequency	%	Frequency	%
Inadequate	37	61.67	17	28.33
Moderate	15	25.00	12	20.00
Adequate	8	13.33	31	51.66
Overall	60	100.00	60	100.00

N= 60

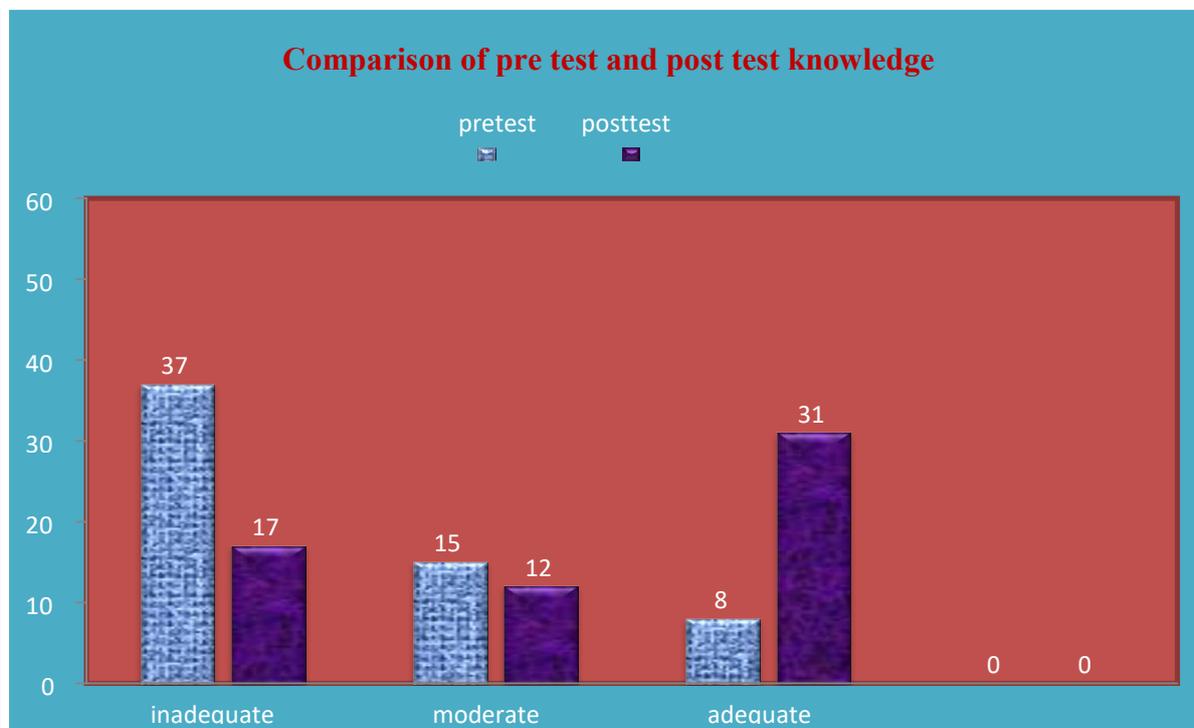


Diagram: 1 pretest and post test knowledge score regarding umbilical cord blood banking

Table 2: showed that Overall maximum practice Score of Staff nurse

Sl. No.	aspect	Max. score	Before VAT				After VAT			
			Range	Mean	SD	Mean%	Range	Mean	SD	Mean%
1	Attitude	80	45-52	33.71	15.06	42.16	47-76	64.28	8.48	80.35

N=60

DISCUSSION

The findings of study revealed that regarding umbilical cord blood banking, overall pretest knowledge was 17.8%, Majority of nurses 67.6% had inadequate knowledge regarding UCBB among staff nurses. Same way pretest attitude score was, 33.7% our all finding of posttest knowledge was 21.3%, 51.6% got adequate knowledge and 20% got moderately adequate knowledge with posttest attitude

mean 64.28, SD 8.48 and mean % 80.35 regarding UCBB among Staff nurses after administering the structure teaching programme.

Finding also revealed that UCBB of the staff nurses revealed that the overall posttest mean knowledge score was higher (88.7%) with SD of 2.41 when compared with overall pre-test mean knowledge score value which was 74.5% with SD of 3.28 and paired" test value was 13.4 which

showed that the value was significant at $p < 0.005$ level. that pretest attitude was 42.16% posttest attitude was 80.35% Hence the research hypothesis H1 is accepted. This indicated that video assisted structured teaching programme on umbilical cord blood banking was effective in increasing the overall knowledge and attitude scores of staff nurses.

The finding shows that there was a positive relation between knowledge and attitude in posttest. This indicates adequate knowledge will enhance attitude source umbilical cord blood banking. As per finding of study shows that there is a significant association of posttest knowledge with education level of staff nurses, same way there is a significant association of posttest attitude with education & previous knowledge of selecting demographic variable.

CONCLUSION

The VAT proved to be an effective teaching method for providing information. It was very much appreciated, encouraging as well as satisfying, to note that after administration of VAT, the post-test score showed an increase in knowledge and attitude. although the nursing professional more need to understand about cord blood banking and its important in the current scenario.

Competing Interests- No competitive financial interest declaration by any individual or entity or non-financial

competing interests, such as political, economic, religious, ideological, scholarly, scientific and commercial or any other competing interests are related in this manuscript.

Ethical approval- studies were conducted in conjunction with the standards for human research after the ethical permission of competent authority of hospital administration and from the staff nurse's prior permission / written consent was obtained from each research participant.

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REFERENCES

- [1] Bonilla Nayar, Deepika Deka, Vinod Kumar Paul, Deep Takkar. Effect on the newborn of umbilical cord blood collection at delivery. OBG and Gynae Today 2004 July; volume (7) 9:454-456.
- [2] Conrad V Fernandez, Kevin Gordon, Michiel Van den Hof, Shaureen Taweel and Francoise Baylis. Knowledge and attitudes of pregnant women with regard to collection, testing and banking of cord blood stem cells 2001.
- [3] Ealias M, Choudhury N, Smit Sibling aCTh. Cord blood from collection to expansion: feasibility in a regional blood bank. Indian

journal of pediatrics 2003April;
volume 70: 327-336.

- [4] Johnson F. Placental blood transplantation and autologous banking-caveat emptor. *Journal of Pediatric Hematology and Oncology*. 2007; 19(3): 183-6.
- [5] Sharma SK. *Nursing research and statistics*. 1st edition. Haryana: Elsevier; 2011.p. 288-297.
- [6] Rubinstein P. Why cord blood? *Human Immunology*. 2006; 67(6): 398-404.
- [7] Path Care Labs Launches “Cord Care” – cord blood stem cell bank in India. 2010 January 28; 16: 59.
- [8] Dr. P. Puigdomenech Rosell, Prof. G Virt. Ethical aspects of Cord blood banking. 2004 March 16; 19.
- [9] Saboohi Nasim, Kiran. K Momaya. Cord Blood Banking – Opening New Vistas for Medical Tourism Industry in India. 2000; 342 (25): 1846-1854.