



A study to assess the knowledge regarding cord blood banking among eligible couples in selected urban Area, Bangalore.



Prof. P. Shanmugavadivu
Dept of CHN
Narayana College of Nursing,
Chinthareddypalem,
Nellore.

Dr. A. Indira,
Principal
Narayana College of Nursing,
Chinthareddypalem,
Nellore.

Mrs. E. Kannagi
Dept of CHN,
Narayana College of Nursing,
Chinthareddypalem,
Nellore.

Abstract: Cord blood is collected from the baby's umbilical cord after delivery. This method poses no risk to the mother or baby. Most often the cells are discarded with the umbilical cord as biohazard waste. Umbilical cord blood contains hematopoietic stem cells that are very different from other types of cells in the body. These special stem cells have the ability to divide and renew themselves for long periods and have the ability to differentiate into all the cells of the body (National Institute of Health, 2009) **Objectives:** 1. To assess the knowledge regarding cord blood banking among eligible couples. 2. To find an association between knowledge scores and selected demographic variables among eligible couples regarding cord blood banking. **Materials and Methods:** Quantitative non-experimental research design (descriptive design) and convenient sampling were followed including 50 samples. Data was collected using a knowledge questionnaire. Data analysis was done with SPSS. Results: Results shows that, Frequency distribution of the eligible couples by the scores obtained on knowledge regarding cord blood banking, majority 36 (72%) of eligible couples were with average knowledge level, 14 (28%) were with above average knowledge level and none of them were with below average. **Conclusion:** The present study concluded that there is a significant level of knowledge on cord blood banking among eligible couples in selected Urban Area in Bangalore. **Key words:** Nursing intervention, eligible couples, cord blood banking.

Introduction: Cord blood stored in private bank are used for either autologous or allogeneic transplants for the infant donor or related family members but private cord blood bank are not searchable or available to the public till now. More than 1,000,000 cord blood units are stored in over 130 private cord blood banks. Both private and public banks can store cord blood units for a period of around 20 Years. Cord blood is collected from the baby's umbilical cord after delivery. This method poses no risk to the mother or baby. Most often the cells are discarded with the umbilical cord as biohazard waste. Umbilical cord blood contains hematopoietic stem cells that are very different from other types of cells in the body. These special stem

cells have the ability to divide and renew themselves for long periods and have the ability to differentiate into all the cells of the body (National Institute of Health, 2009)

- 1970: First umbilical cord blood transplant was performed in 16 years old with all.
- 1988: First umbilical cord blood bank was established in France.
- 1992: First public umbilical cord blood bank was established in New York USA.
- 1995: Cord blood registry was established Jeevan first public cord blood bank setup in Tamilnadu, India.
- 1998: The first successful cord cell transplant was done.



Cord blood contains all the normal elements of the blood - Red blood cells, White blood cells, platelets and plasma. But it is also rich in hematopoietic stem cells, similar to those found in the bone marrow.

Cord blood can also be used to treat a variety of non-malignant diseases including Fanconi's anemia, hunter syndrome, idiopathic aplastic anemia.

Statement of the Problem:

A study to assess the knowledge regarding cord blood banking among eligible couples in selected urban Area, Bangalore.

Objectives of the study:

1. To assess the knowledge regarding cord blood banking among eligible couples.
2. To find an association between knowledge scores and selected demographic variables among eligible couples regarding cord blood banking.

Materials and Methods:

Assumption: Nursing intervention self care will improve the knowledge of elderly population at selected urban areas.

Delimitation: Study is restricted with selected urban area Bangalore. Sample size in 50 only.

Projected out Come: The present study will help to identify the effectiveness of nursing intervention will improve the self care capacity among elderly at selected urban areas.

Research Approach: Quantitative approach

Research Design:

Non-experimental research design (descriptive design)

Setting:

Study was conducted at Urban area of Bagalagunte, Bangalore.

Target Population: The target population of the study was Eligible Couples.

Sample and Sampling Technique: Non-probability convenient sampling was used to select 50 eligible couples.

Sampling and data collection: Descriptive non-experimental research design was used to assess the knowledge regarding cord blood banking among

Eligible Couples in Urban area of Bangalore. Couples who were eligible, can understand regional language, who were available during data collection and voluntarily willing to participate in the study were included. Who were sick, who are Mentally Handicapped were excluded. Prior Permission was obtained from ethical clearance committee.

Participants signed an informed consent and were told they could withdraw from the study at any time for any reason.

Assumption: Eligible couples may have some knowledge regarding cord blood banking.

Description of Tool:

Section - I: It consist of questions related to demographic variables

Section - II: It consist of structured questions on knowledge regarding on cord blood banking.

Each question gives success answer as 1 score. If not answering gives 0 score.

Score Interpretation:

The score was interpreted as follows:

- 0 – 50% - Inadequate knowledge
- 51-75% - Moderately adequate knowledge
- > 75% - Adequate knowledge

Data Analysis: Data was analyzed by using descriptive and inferential statistics. Frequency, percentage, Item analysis, mean, standard deviation, and chi-square test were done.

Results: Results shows that, majority 22 (44%) were with the age of 29-32 years, 15 (30%) were in the age of 33-36 years, 12 (24%) were in the age of 25-28 years and 1 (2%) were in the age of 37-40 years. In relation to Gender, majority 27(54%) were males and 23 (46%) were females.

As per educational level, majority 36 (72%) were with postgraduates, 13 (36%) were graduates and 1 (2%) was completed doctorate. Regarding income, majority 21 (42%) were getting more than Rs. 50001/- per month, 19 (38%) were earning Rs. 40001-50000/- per month, 6 (12%) were earning Rs. 30001-40000/- per month and 4 (8%) were earning lesser than Rs. 30000/- per month. With history of disease, 4 (8%) had history of congenital disease, 13



(26%) had hereditary diseases, 9 (18%) had metabolic diseases and 24 (48%) had other than these diseases in the family. In relation to type of marriage, majority 44 (88%) were with non-consanguineous marriages and 6 (12%) were with consanguineous marriages. Regarding source of information, majority 35 (70%) had information from news paper and 15 (30%) had information from social media.

LEVEL OF KNOWLEDGE ON CORD BLOOD BANKING AMONG ELIGIBLE COUPLES

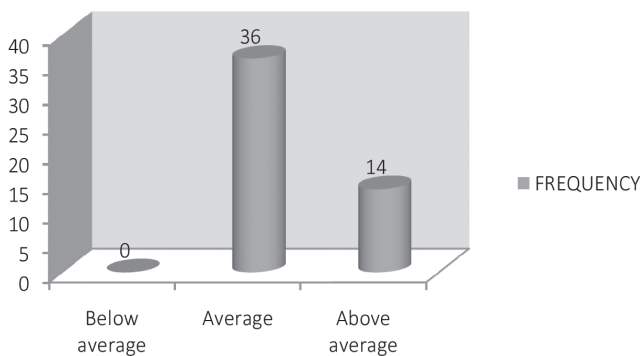


Fig No. 1: Frequency distribution of knowledge on cord blood banking among eligible couples.

Figure 1 reveals the Frequency distribution of the eligible couples by the scores obtained on knowledge regarding cord blood banking, majority 36 (72%) of eligible couples were with average knowledge level, 14 (28%) were with above average knowledge level and none of them were with below average.

Discussion: The study results showed the level of knowledge that none of them are below average and 36(72%) were average knowledge and 14(28%) were above average knowledge. The present study showed that there is statistical association between the demographic variables with the level of knowledge among eligible couple. In conclusion, the study revealed that a significant level of knowledge on cord blood banking among eligible couples in selected Urban area in Bangalore. The study results showed the level of knowledge that none of them are below average and 36(72%) were average knowledge and 14(28%) were above average knowledge. The present study showed

that there is statistical association between the demographic variables with the level of knowledge among eligible couples. The results show that with regard to association of level of knowledge regarding knowledge on cord blood banking among eligible couples and selected demographic variables, the calculated value is less than the table value at $P=0.05$. So statistically there is no significant association between level of knowledge among eligible couples and selected demographic variables.

Conclusion: In conclusion, the study revealed that there is a significant level of knowledge on cord blood banking among eligible couples in selected Urban Area in Bangalore.

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