

Study on knowledge and attitude of Antenatal mothers regarding cord blood banking among Antenatal Mothers

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Abstract: *Abstract: Cord blood banking includes the collection, processing and storage of umbilical cord blood for any future needs that are related to the family or others. The awareness of umbilical cord blood banking that has created a sensation in the scientific community, to treat more than 75 life threatening diseases* **Aim:** *To assess the Knowledge and Attitude on Cord blood Banking among Antenatal Mothers.* **Material and methods:** *Descriptive Cross Sectional study was carried out the study data was collected by using Purposive Sampling Technique among 260 Antenatal Mothers who is attending Antenatal OPD, SJMCH, Bangalore.* **Result:** *The result of the study revealed that in relation to cord blood banking, mean score of knowledge is 10.49 with SD is 3.53, and mean score of attitude is 14.60 with SD of 3.94.* **Conclusion:** *Knowledge of the mothers on cord blood banking in the present study shows that, they have moderately adequate knowledge and they have favourable attitude towards cord blood banking*

Key Words: *Antenatal Mothers, Knowledge, Attitude, Cord Blood Banking and Informational Leaflet.*

1. INTRODUCTION:

Umbilical cord blood is a biological insurance against diseases. The umbilical cord is a rich source of stem cells that can be derived from two sources: cord blood and cord tissue. The stem cells, derived from the cord blood, are called hematopoietic stem cells. These have immense potential in curing blood related malignant disorders like blood cancers, thalassemia, acute lymphocytic Leukemia, myelodysplastic syndrome, neuroblastoma, non-malignancy disorders like fanconi's anemia, hunter syndrome, hurler syndrome, idiopathic aplastic anemia and even tissue related disorders of heart, bone, spinal cord, immune disorders as type 1 diabetes and rheumatoid arthritis².

2. STATEMENT PROBLEM:

A study to assess the knowledge and attitude of Antenatal mothers on cord blood banking in a selected hospital, Bangalore with a view to develop an informational leaflet"

2.1. OBJECTIVES:

1. To assess the knowledge on cord blood banking among antenatal mothers.
2. To assess the attitude towards cord blood banking among antenatal mothers
3. To determine the correlation between the knowledge and attitude towards cord blood banking among the antenatal mothers.
4. To find out the association
 - A) Between knowledge on cord blood banking and the selected baseline variables of antenatal mothers.
 - B) Between attitude towards cord blood banking and the selected baseline variables of antenatal mothers.

2.2. HYPOTHESIS:

H1: There will be a significant correlation between knowledge and attitude of antenatal mothers on cord blood banking at 0.05 level of significance.

H2: There will be a significant association between

- a) Knowledge on cord blood banking and selected baseline variables at 0.05 level of significance.
- b) Attitude towards cord blood banking and selected baseline variables at 0.05 level of significance.

3. METHODOLOGY:

3.1 RESEARCH APPROACH: Quantitative Research approach

3.2 RESEARCH DESIGN: Descriptive Cross Sectional Study design,

3.3 STUDY SETTING: The Study was conducted, who visited antenatal OPD at SJMCH, Bangalore.

3.4 POPULATION Antenatal Mothers, SJMCH, Bangalore

3.5 SAMPLE AND SAMPLING TECHNIQUE: Purposive Sampling Technique / 260 samples

3.6 CRITERIA FOR THE SAMPLE SELECTION

Inclusion criteria

Antenatal mothers

- Who are seeking hospital services, outpatient and inpatient department.
- Who are with between 12 to 36 weeks of gestational age.
- Who are able to read and write English, Kannada, Tamil, Telugu or Hindi.

Exclusion criteria

Ante natal mothers with psychiatric disorder

3.7 Description of the tool:

The tool was divided into section I, II, III.

Section I- Baseline Proforma

Section II- Structured knowledge questionnaire to assess the knowledge on cord blood banking.

Section III -3point Attitude scale on cord blood banking to assess the attitude towards cord blood banking.

4. RESULTS:-

SECTION1: DESCRIPTION OF BASELINE VARIABLES

Table1a: Frequency and percentage distribution of age, education, occupation, income, type of family, place of residence, gravida and previous information.

n=260

S.NO	BASELINE VARIABLES	F	%
1	Age in years		
	• ≤30 years	204	78.46
	• >30 years	56	21.54
2	Education		
	• High school	18	6.92
	• Hr.Sec.school	32	12.31
	• Diploma/graduate/and above	210	80.77
3	Occupation		
	• Semiskilled	183	70.38
	• Skilled	7	2.69
	• Professional	70	26.92
4	Income(Rupees)		
	• ≤ Rs30,000	188	72.31
	• >Rs30,000	72	27.69
5	Type of family		
	• Nuclear	149	57.31
	• Joint	111	42.69
6	Place of residence		
	• Rural	36	13.85
	• Urban	224	86.15
7	Gravida		
	• Primi	166	63.85
	• Multi	94	36.15
8	Previous information		
	• Yes	107	41.15
	• No	153	58.85

Table1a, shows that majority 78.46% of the antenatal mothers were in the age group of less than 30 years. It is evident that 80.77% of the mothers were graduated.70.38% were semi skilled by occupation. 72.31% women had income in the range of above Rs.30,000,57.31% were belonged to Nuclear family,86.15% of mothers living in urban,63.85% were primi mothers,41.15% mothers got previous information on cord blood banking.

Table1b: Frequency and percentage distribution of source of information , inborn defect in the family of the antenatal mothers and utilization cord blood banking facility in the family.

n=260

S.NO	BASELINE VARIABLES	F	%
9	Source of information		
	• Friends	18	16.82
	• Media	51	47.66
	• Hospital	21	19.63
	• Text book	17	15.89
10	Inborn defect in the family		
	• Yes	1	0.38
	• No	259	99.62
11	Utilization of cord blood banking facility in the family		
	• Yes	-	-
	• No	260	100.00

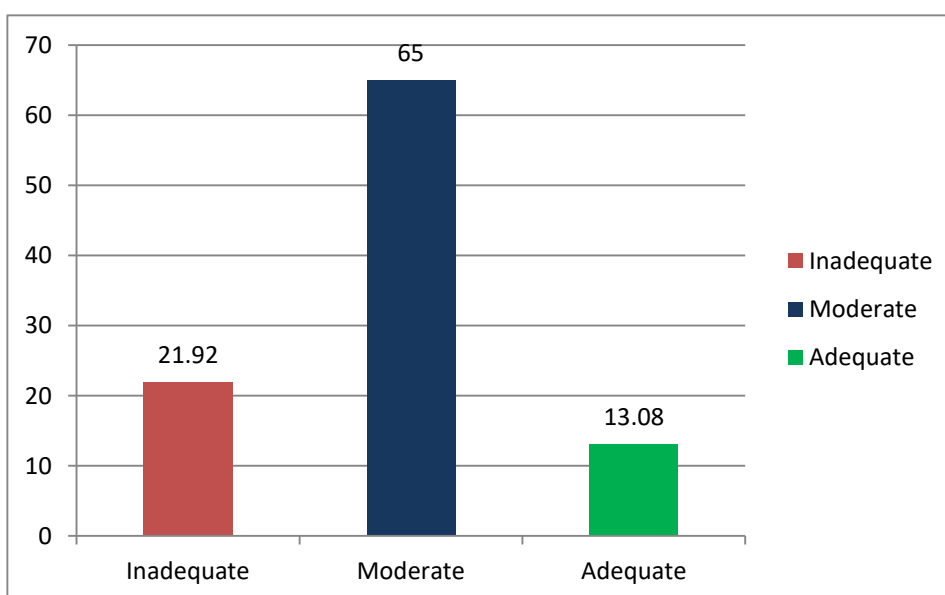
Table1b, shows that 47.66% mothers have received the information from Media,0.38% has got inborn defect and no one utilized the facility of cord blood banking.

Table2: Mean, and standard deviation of knowledge score among antenatal mothers on cord blood banking.

n=260

S.No	Variables	Maximum Score	Range	Mean	SD
1	Knowledge	24	1-19	10.49	3.53

Table2 shows that the knowledge score of mean is 10.49 with SD of 3.53.

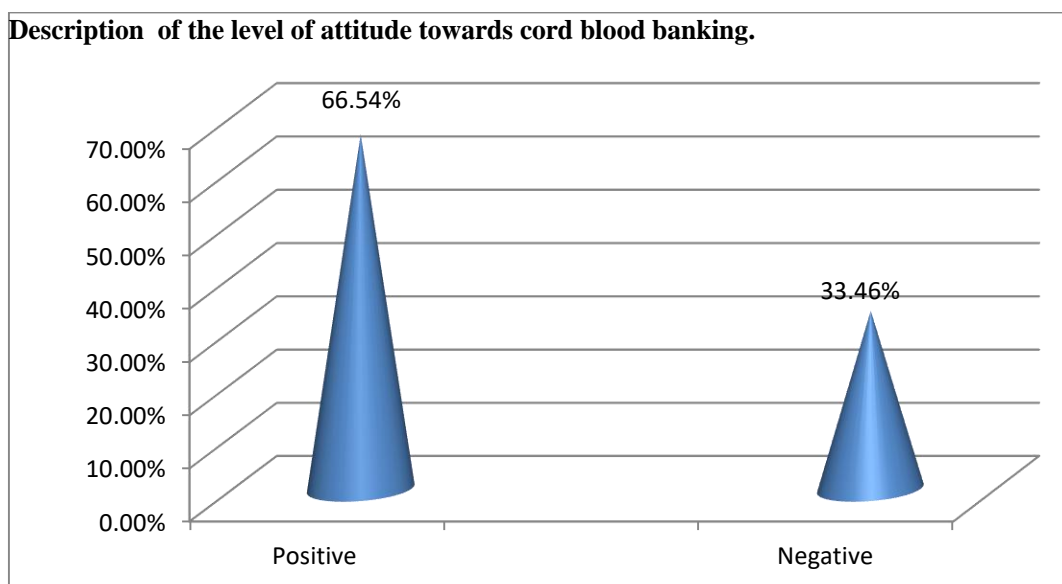


Section 3: Description of the level of attitude towards cord blood banking.

Table3: Mean and standard deviation of attitude scores of antenatal mothers towards cord blood banking .

n =260					
S.No	Variables	Maximum score	Range	Mean	SD
1	Attitude	24	4-23	14.60	3.94

Table3 shows that the attitude score of mean is 14.60 with SD of 3.94.



5. DISCUSSION AND CONCLUSION:

The present study is aimed at revealing the levels of knowledge and Attitude among antenatal mothers. In this chapter the findings related to present study are discussed with reference to the results obtained by related studies. The focus of the study is to assess the knowledge and Attitude of Antenatal mothers on cord blood banking in a selected hospital , Bangalore with a view to develop an informational leaflet. Sample size was 260. In the present study the knowledge was assessed by structured knowledge questionnaire. In relation to knowledge score 65%of antenatal mothers had moderately adequate knowledge, 13.08%of mothers had adequate knowledge and 21.92% of mothers had inadequate knowledge. Mean score of knowledge was 10.49 and the SD was 3.53 the level of attitude were assessed by attitude scale .66.54% of Antenatal mothers had favourable attitude and 33.46% Antenatal mothers had unfavourable attitude. The mean score of the attitude is 14.60 and the SD is 3.94. Supported by a study was conducted to evaluate the attitude of women towards cord blood donation and transfusion. Data were collected from 180 women who were attended the maternity clinic in Mombasa, by using questionnaire. In this study, the donation and transfusion of cord blood were acceptable to 81%and 78%of women respectively. This study concluded that the donation of umbilical cord blood and its transfusion are acceptable to the majority of women³².

Findings related to Correlation between knowledge and attitude of antenatal mothers on cord blood banking.

The present study revealed that there is positive correlation between knowledge and attitude at the p <0.001 level (r- value 0.45). And also it depicts that there is positive trend between the level of knowledge and attitude.

Findings related to association between knowledge and selected baseline variables.

In the present study there is a significant association between the knowledge and the age, education, occupation, Income, type of family, place of residence, and inborn defect. There is no association between knowledge and gravida, source of information and utilization of cord blood banking facility in the family. In the present study there is a significant association between the knowledge and the age, education, occupation, Income, type of family, place of residence, and inborn defect. There is no association between knowledge and gravida, source of information and utilization of cord blood banking facility in the family. In the present study there is a significant association between the attitude and previous information at 0.002level of significance. There is no association between attitude and age, education, occupation, income, type of family, gravida, source of information, inborn defect and utilization of

cord blood banking facility in the family. The present study revealed that there is positive correlation between knowledge and attitude at the $p < 0.001$ level (r - value 0.45). And also it depicts that there is positive trend between the level of knowledge and attitude.

7. RECOMMENDATIONS:

- A comparative study can be carried out between rural and urban population to assess the knowledge and attitude regarding cord blood stem cell banking.
- A video assisted teaching program on cord blood stem cell therapy can be conducted in larger samples.
- An informational leaflet can be used to educate the antenatal mothers.

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