

Assess the awareness concerning stem cells and cord blood banking between antenatal mothers in Prathima Hospital, at Karimnagar, Telangana.

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Abstract

Background: As the new born is distributed and the umbilical cord separated, blood can be composed from the section of cord, still committed to the placenta are known as “umbilical cord blood” stem cell. The blood collected in the umbilical cord is said to be a rich origin of stem. The blood contains stem cells which are also known as hematopoietic cells and these cells can convert into any types of organs in the body. These stem cells collected from the umbilical cord can heal genetic diseases related to blood and immune system like cancer, blood disorders and several life –threatening diseases.

Objectives: Assess the level of knowledge concerning stem cells & cord blood banking between antenatal mothers and find out the association.

Materials and Methods: Descriptive investigation strategy was chosen to assess the knowledge. The sample size was 30 Antenatal mothers. Demographic variables and the level of knowledge among antenatal mother concerning stem cells & cord blood banking were composed by using structured questionnaire.

Results: The current knowledge level of antenatal mother on stem cells and cord blood banking portrays that 22(73.4%) had inadequate knowledge, 8(26.6%) had moderate and no antenatal mothers had adequate knowledge.

Conclusion: The findings revealed that most of the antenatal mothers were present with inadequate knowledge regarding stem cells & cord blood banking

Keywords: Stem cells, cord blood banking, antenatal mother,

I INTRODUCTION

“In beginning there is the stem cell it is the origin of an organism’s life”

Stewart Cell.

The umbilical cord blood comprises numerous hematopoietic stem cells with the ability to distinguish into other cells & the capability to self-degenerate. Stem cells are well-defined just as cells meeting three basic standards. First, stem cells reintroduce themselves during life, i.e., the cells divide to produce equal offspring cells and thereby preserve the stem cell populace. Second, stem cells have the capacity to undergo distinction to become dedicated offspring cells when stem cells differentiate, they may divide unequally to yield an equal cell and a daughter cell that obtains properties of a specific cell type, for example, detailed morphology, phenotype, and physiological belongings that classify it as a cell belonging to a specific tissue. Stem cells and stem cell research have opened new streets for the treatment of sickness. Stem cells are special cells because they are able to self-replicate and differentiate into other body cells

II RESEARCH METHODOLOGY

Research methodology is a way to methodically resolve the research problem.

Research Design: Descriptive research design was chosen to assess the knowledge.

Settings of the Study: The study was directed in designated hospitals at Karimnagar.

Population: The study population includes of antenatal mothers in designated hospitals at Karimnagar.

Sample size: The sample of 30 antenatal mothers who fulfilled the enclosure standards is considered as sample for this study.

Sampling Technique: Convenient sampling procedure was used for the selection of sample for the study.

Criteria for sample selection

Inclusion criteria

- Antenatal mothers who are willing to contribute in the learning
- Antenatal mothers who are accessible at the time of data gathering.

Exclusion criteria

- Antenatal mothers who have any hearing and visual problems.
- Antenatal mothers who already registered for cord blood and stem cell therapy.

Description of the tool

It consist of two sections

Section A. It deals with demographic variables such as age, type of family, Number of children, educational status, and religion.

Section B. A structured questionnaire containing 30 multiple choice questions and each question has 4 choices, each correct response carries 1 mark and wrong response carries 0 marks.

PROCEDURE FOR DATA COLLECTION

Data was collected from antenatal mothers after obtaining a formal written permission from the hospital. Each person was assured for data collected from them was utilized only for the purpose of study and will be kept confidential. The investigator uses structured questionnaire to collect data.

PLAN FOR DATA ANALYSIS

Descriptive and inferential figures will be used to investigate the collected data.

Section -1:

The demographic data was analyzed by using frequency and percentage.

Section -2:

Association of knowledge score among antenatal mothers concerning stem cells & cord blood banking with designated demographic variables will be examined by chi-square test

III RESULTS

Frequency and percentage distribution of the demographic variables among antenatal mothers

S.NO	Demographic variables	Frequency	Percentage
1	AGE		
	a)20-25 Years	7	23.3%
	b)26-30 Years	14	46.6%
	c)31-35Years	9	30%
2	TYPE OF FAMILY		
	a)Joint family	12	40%
	b)nuclear family	18	60%
3	NUMBER OF CHILDREN		
	a)1 child	8	26.6%
	b)2 children	19	63.3%
	c)more than 2 children	3	10%

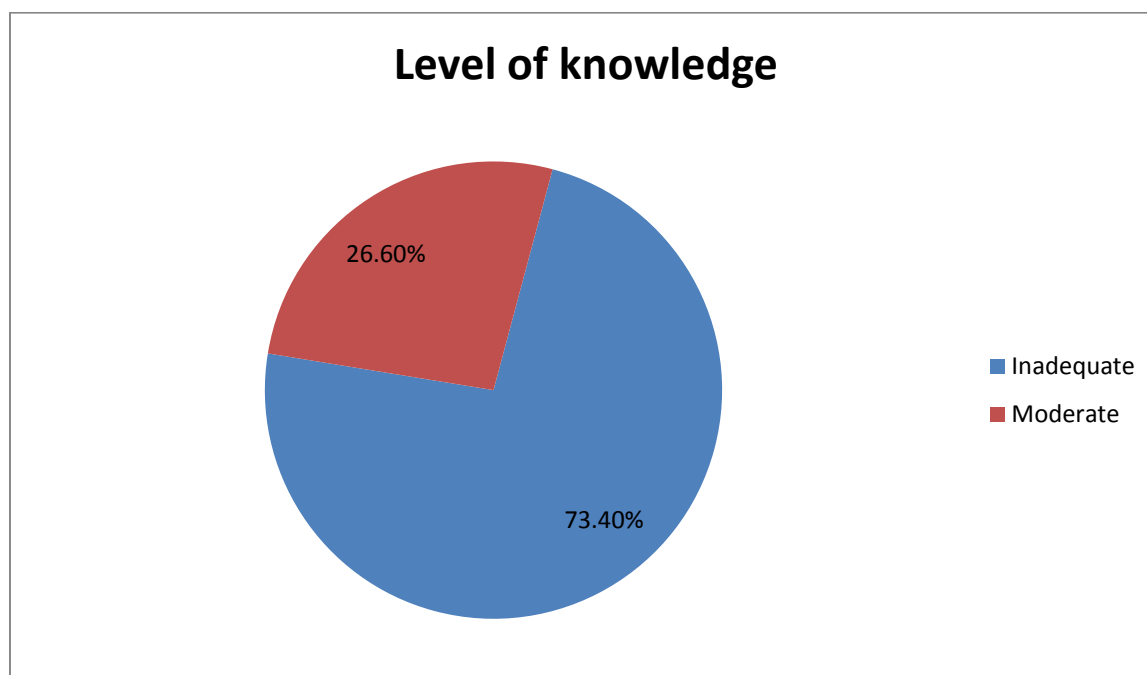
4	EDUCATIONAL STATUS		
	a)Illiterate	11	36.66%
	b)Primary school	14	46.6%
	c)High school	5	16.6%
5	RELIGION		
	a)Hindu	17	56.6%
	b)Christians	7	23.3%
	c)Muslim	6	20%
	d)Others	0	0%

In this study out of 30 samples, (23.3%) were in the age group of 20-25years, (46.6%) were in the age group of 26-30years, (30%) were in the age group of 31-35 years., On the basis of type of family (40%) of samples were belongs to joint family and (60%) of samples belong to nuclear family. Based on number of children (26.6%) have 1 child and (63.3%) have 2 children and (10%) have more than 2 children. On the basis of educational qualification (36.6%) samples are illiterate and (46.6%) samples are educated till primary school (16.6%) are educated till high school. With regard to religion, (56.6%) samples are Hindu (23.3%) samples are Christian and (20%) samples are Muslim.

Frequency and percentage distribution to measure the information concerning stem cells & cord blood banking amongst antenatal mothers:

S.No	Level of knowledge score	Frequency	Percentage
1	Inadequate	22	73.4%
2	Moderate	8	26.6%
3	Adequate	0	0

The current knowledge level of antenatal mother on stem cells and cord blood banking portrays that 22(73.4%) had inadequate knowledge, 8(26.6%) had moderate and no antenatal mothers had adequate knowledge.



Association between the level of knowledge concerning stem cells & cord blood banking amongst antenatal mothers with their designated demographic variables:

S.NO	Demographic variables	Inadequate	Moderate	Adequate	Chi square	df	Critical value
1	AGE a)20-25 Years b)26-30 Years c)31-35Years	8 15 0	4 3 0	0 0 0	1.21 Not significant	4	9.49
2	TYPE OF FAMILY a)Joint family b)nuclear family	2 21	7 0	0 0	21.29 significant	2	5.99
3	NUMBER OF CHILDREN a)1 child b)2 children c)more than 2 children	17 0 6	3 0 4	0 0 0	2.26 Not significant	4	9.49
4	EDUCATIONAL STATUS a)Illiterate b)Primary school c)High school	8 12 3	2 4 1	0 0 0	0.07 Not significant	4	9.49
5	RELIGION a)Hindu b)Christian c)Muslim d)Others	1 10 10 2	4 1 1 1	0 0 0 0	11.649 significant	3	7.82

In demographic variables types of family and religion had shown significant association in statistics with level of antenatal mothers knowledge in regard to stem cell and cord blood banking at 0.05 level and the other demographic variables had not shown statistically important suggestion with level of information concerning stem cells & umbilical cord blood banking amongst antenatal mothers.

IV DISCUSSION

The greatest responsibility of a parents starts at the time when a child is born. Parents are the basic care takers who play the most important role in upbringing a child. A child life depends greatly upon the decision taken at the time of birth. In this study the current knowledge level of antenatal mother on stem cells and cord blood banking portrays that 22(73.4%) had inadequate knowledge, 8(26.6%) had moderate and no antenatal mothers had adequate knowledge. Contrary study conducted by **Seema Barnabass and Harjit** Findings discovered that majority 28% of the antenatal mothers had average awareness, 72% antenatal mothers had below average.

CONCLUSION

The findings revealed that most of the antenatal mothers were present with inadequate knowledge concerning stem cells & cord blood banking therefore it is significant to create more consciousness among antenatal mothers about stem cells and cord blood banking. Moreover mothers need to recognize about umbilical cord blood banking so that they can deliver accurate information to the people and prevent the child from various diseases.

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