



**A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING
PROGRAMME ON CORD BLOOD BANKING AMONG STAFF NURSES IN
SELECTED MEDICAL COLLEGE HOSPITAL AT INDORE, MADHYA
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Abstract

In This Pre Experimental Design, Sample Consisted Of 100 staff nurses Selected By Non Probability Purposive Sampling Technique. Self Structure Questionnaire Tools Was Used For Assessing The Knowledge Of staff nurses Pre Test Was Conducted By Using The Same Structured Questionnaire And After 30 Days Post Test Was Conducted Using The Same Structured Questionnaire For Assessing The effectiveness of structured teaching programme on cord blood banking among staff nurses Mean Percentage Of The Knowledge Score Of Post Test Mean 23.8 Was Higher Than Mean Pre Test 12.8 The 'T' Value For Total Pre Test And Post Test Was 28.8 The Data Was Analyzed In Terms Of Descriptive And Inferential Statistics.

INTRODUCTION

The human body is a whole structure. It is made up of many types of interconnected cells that form tissues and the organ system in turn. They ensure homeostasis and function in the human body. The human body is made up of more than 200 kinds of mature cells: each with its own unique function. Stem cells differ from our mature functional cells, which have the amazing ability to do much more on their own, but also to create new tissue as they divide and grow. The discovery of stem cells was one of the great achievements of modern medicine, stem cells found in cord blood have the ability to permanently separate cultures and make special cells that are the structures of our blood and immune system and easily replicate into red blood cells, white blood cells and platelets.

The umbilical cord is an important direct link between mother and fetus, which is often portrayed as a maternal emotional connection, which is good for women. When a mother gives birth, the blood that stays in the placenta and navel is called a blood vessel. This particular blood contains many hematopoietic stem cells that have the ability to divide into other cells and the ability to break down.

A stem cell is a cell that can be the basis for a healthy growing environment, has the ability to reproduce, can produce cells that continue to differentiate and regenerate themselves or ensure the continuity of its population and can regenerate tissue through active damage. Stem cells, long used in the treatment of leukemia and other cancers, have recently been used in drug development, and these advances offer hope for the treatment of diabetes, cardiovascular and neurogenerative diseases, but these applications have yet to be confirmed.

Stem cell transplants have been performed using bone marrow or peripheral blood as a source of hematopoietic stem cells, but in most cases, stem cells from the umbilical cord are selected, given the low risk of graft against the host, antigen large human leukocyte. exceptional tolerance, low cost, minor infectious diseases, very early detection and non-donor risk.

The navel is a very important, direct connection between the mother and her baby, which is often portrayed as a blood relationship and the emotional connection of being a mother. After the baby is born and the umbilical cord is amputated, some of the blood remains in the blood vessels of the placenta and part of the umbilical cord remains attached to it. This is called a blood clot. This particular blood contains many hematopoietic stem cells, which differentiate from other cells and convert it into any organ and the ability to self-injure.

Objectives

1. To assess the level of knowledge of staff nurses before and after structured teaching programme on cord blood banking using structured questionnaire.
2. To determine the effectiveness of structured teaching programme on cord blood banking by comparing the pre and post test knowledge score.

3. To determine association between the pre test knowledge score of staff nurses on cord blood banking with their demographic variables ie age, gender education ,field of experience and years of experience .

Hypothesis:

1. There will be significant improvement in the knowledge level of staff nurses on cord blood banking after structured teaching program at 0.05 level of significance.
2. There will be is a significant association between the level of knowledge regarding cord blood banking among staff nurses with the selected demographic variables such as age, education, field of experience and years of experience at 0.05 level of significance.

Methods and Material

An extensive review of literature was undertaken. The conceptual framework based on “Modified J.W. Kenny’s Open System Model (1990) ”the general system theory An experimental research approach was used to assess the knowledge regarding cord blood banking among staff nurses.

A pre experimental research design was Considered Appropriate for the study effectiveness of structured teaching programme on cord blood banking among staff nurses one group pre test and post test design was used. In order to measure the content validity of the tool, the questionnaire schedule was given to the 12 experts from the field of child health Nursing and Maternal health nursing. The experts were chosen on the basis of their clinical expertise, experience, qualification and interest in the problem area. The tool was found reliability of tool was calculated with split half method and found 0.87 which is statically reliable for the present study.

RESULT

The pre-test knowledge score was 12.8 ± 1.64 and post test knowledge score was 23.8 ± 2.44 . The structured teaching programme improved the knowledge level on an average of 11.0. The value calculated for the difference of pre test and post test is statistically significant. The ‘t’ value found to be 28.8 at $p < 0.05$ level of significance. That showed that there was a significant improvement in the knowledge level.

Chi-square test was used to analyze the association between the demographic variable with pre test knowledge score. There is no association between pre test knowledge and demographic variable Except Year of experience.

CONCLUSION

Structured teaching programme increases the knowledge. The findings also were congruent with other study. Mean pretest score was 12.8 ± 1.64 ; post test score was 23.8 ± 2.44 . Structured teaching programme was very effective in improving the knowledge of staff nurses regarding cord blood banking. There was no association between selected demographic variables with their level of pre test knowledge score.

REFERENCE

1. Blume KG, Forman SJ, Appelbaum FR. (2004). Thomas' Hematopoietic Cell Transplantation, 3rd edition. Blackwell publishers, Willison. 1563 -1601 .
2. Atkinson K, Champlin R, Ritz J, Fibbe WE, Ljungman P, Brenner MK. (2004), Clinical Bone Marrow and Blood Stem Cell Transplantation. Third edition. Cambridge university press, United Kingdom, 1968 -1980.
3. Champlin R, Ippoliti C..(2007). Supportive Care Manual for Blood and Marrow Transplantation . summit publication, New York. 206 - 210.
4. Laughlin MJ, Lazarus HM.(2003) . Allogeneic Stem Cell Transplantation . Humana press, New Jersey, 454 -460.
5. Mehta P.(2004). Pediatric Stem Cell Transplantation, Jones and Bartlett Publishers, Sudbury, MA, 484-490.
6. Broxyemer, HE (2004) . Cord Blood- Biology, Immunology, Banking, and Clinical Transplantation, American association of blood bank, New York, 143-150.
7. Petz LD, Garratty G.(2009) Immune Hemolytic Anemias , Elseviers science, Philadelphia, 1235-1350
8. Elena.S. ,Sara casatio. ,simonetta .B., Antonella B., Daniela .C., et al. (2010). Decision making in cord blood donation. Transfusion and Apheresis science, 42(3), 299-305.
9. Stephen sik.H.S. Terence. T.L., Oi.K.C., Thomas.K.O.K., et al.(2011). Maternal understanding on cord blood banking. , Acta obstetrica Gynecologica

scandinavica .90(9). 1005- 1009.

11. Karen .K .Ballen.(2009) . New trends in cord blood transplantation. Review in translational hematology.