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A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING STEM CELL THERAPY

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ABSTRACT

An experimental study was performed to assess the effectiveness of structured teaching programme on knowledge regarding stem cell therapy among nursing students at Andavar College of Nursing, Nagapattinam. Fifty students was selected using non probability convenient sampling technique. Data were collected using a demographic, structured knowledge questionnaire followed by pretest and structured teaching programme was given after seven days post test was conducted by same structured knowledge questionnaire. The data obtained were analyzed using descriptive and inferential statistics. The study concluded that structured knowledge questionnaire followed by pretest and structured teaching programme were effective in increasing knowledge among selected nursing students.

INTRODUCTION

Every human being is the author of his own health or disease".

- Goutham Buddha

Stem cell, an undifferentiated cell that can divide to produce some offspring cells that continue as stem cells and some cells that are destined to differentiate (become specialized). Stem cells are an ongoing source of the differentiated cells that make up the tissues and organs of animals and plants. A person's body contains stem cells throughout their life. The body can use these stem cells whenever it needs them. Also called tissue-specific or somatic stem cells, adult stem cells exist throughout the body from the time an embryo develops.

The cells are in a non-specific state, but they are more specialized than embryonic stem cells. They remain in this state until the body needs them for a specific purpose, say, as skin or muscle cells. Day-to-day living means the body is constantly renewing its tissues. In some parts of the body, such as the gut and bone marrow, stem cells regularly divide to produce new body tissues for maintenance and repair. Stem cells are present inside different types of tissue. Scientists have found stem cells in tissues, including: The brain, bone marrow, blood and blood vessels, skeletal muscles, skin and liver.

Medical researchers believe that stem cell therapy has the potential to dramatically change the treatment of human disease. A number of adult stem cell therapies already exist, particularly bone marrow transplants that are used to treat leukemia. In the future, medical researchers anticipate being able to use technologies derived from stem cell research to treat a wider variety of diseases including cancer, Parkinson's disease, spinal cord injuries, Amyotrophic lateral sclerosis, multiple sclerosis, and muscle damage, amongst a number of other impairments and conditions. However, there still exists a great deal of social and scientific

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uncertainty surrounding stem cell research, which could possibly be overcome through public debate and future research, and further education of the public

Types of stem cells

Researchers categorize stem cells, according to their potential to differentiate into other types of cells. Embryonic stem cells are the most potent, as their job is to become every type of cell in the body. The full classification includes:

Totipotent: These stem cells can differentiate into all possible cell types. The first few cells that appear as the zygote starts to divide are totipotent.

Pluripotent: These cells can turn into almost any cell. Cells from the early embryo are pluripotent.

Multipotent: These cells can differentiate into a closely related family of cells. Adult hematopoietic stem cells, for example, can become red and white blood cells or platelets.

Oligopotent: These can differentiate into a few different cell types. Adult lymphoid or myeloid stem cells can do this.

Unipotent: These can only produce cells of one kind, which is their own type. However, they are still stem cells because they can renew themselves. Examples include adult muscle stem cells.

Embryonic stem cells are considered pluripotent instead of totipotent because they cannot become part of the extra-embryonic membranes or the placenta.

Statement of the problem

"An experimental study to assess the effectiveness of Structured Teaching Programme on knowledge regarding stem cell therapy among III year BSc Nursing students at Andavar College of Nursing, Nagapattinam"

Objectives

- To assess the pre-test and post-test level of knowledge regarding stem cell therapy among III year BSc Nursing students.
- To assess the effectiveness of Structured Teaching Programme on knowledge regarding stem cell therapy among III year BSc Nursing students.
- To find out the association between post-test level of knowledge regarding stem cell therapy and the selected demographic variables among III year BSc Nursing students.

Assumptions

- The III year BSc Nursing students may not aware of stem cell therapy.
- The structured teaching programme will help to improve the knowledge regarding stem cell therapy among IIIyear BSc Nursing students.
- The students also can serve the society to improve the health and living standard of the people by awareness of stem cell therapy treating some diseases.
- The knowledge regarding stem cell therapy create a positive attitude to treat some disease condition.

Research Hypotheses

- **H_1:** There is a significant difference between the pretest and post-test level of knowledge regarding stem cell therapy among III year BSc Nursing students.
- **H_2:** There is a significant association between the post-test level of knowledge regarding stem cell therapy and their selected demographic variables among III year BSc Nursing students.

METHODOLOGY

An experimental pre test – post test design was used. The study was conducted at Andavar College of Nursing, Nagapattinam. After obtaining their consent, students who fulfilled the criteria were selected by non probability convenient sampling technique. The demographic data and pre test level of knowledge was collected using Structured knowledge questionnaire. 60 minutes Structured Teaching Programme was given followed by seven days. On 7th day investigator conducted the post test by using the same tool.

RESULTS

In this study, the level of knowledge among nursing students it was inferred that pre test the overall mean score was 58.78, SD was 18.96 the obtained overall post test score was 76.84 and SD was 13.92 the obtained 't' value 04.82 was significant at $P<0.05$ level.

Recommendations

A study can be done to assaess the effectiveness of the Structured Teaching Programme on knowledge regarding stem cell therapy among nursing students.

CONCLUSION

The findings of the study revealed a significantly increased in the post test knowledge scores after Structured Teaching Programme. The study concluded that after Structured Teaching Programme the nursing students increase their knowledge in the stem cell therapy.

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