



KNOWLEDGE REGARDING STEM CELL THERAPY AMONG STAFF NURSES.

Nursing

Mr. Amos P. Talsandekar

Asso. Prof, M.Sc.Nursing, Dept of Medical-Surgical Nursing, D.Y. Patil college of Nursing, Kolhapur.

ABSTRACT

Stem cells have the ability to build every tissue in the human body, hence have great potential for future therapeutic uses in tissue regeneration and repair. There are two major classes of stem cells: pluripotent that can become any cell in the adult body, and multipotent that are restricted to becoming a more limited population of cells. Cell sources, characteristics, differentiation and therapeutic applications are discussed. Stem cells have great potential in tissue regeneration and repair but much still needs to be learned about their biology, manipulation and safety before their full therapeutic potential can be achieved.¹

Statement of problem:

“A Descriptive study to identify the knowledge regarding stem cell therapy among staff nurses at D. Y. Patil Hospital in view to develop an informational booklet at Kolhapur”

Objective of study:

1. To assess the knowledge regarding Stem Cell therapy.
2. To find out an association between pre-test knowledge score with their selected socio-demographical variables.
3. To prepare and provide informational booklet on Stem Cell therapy.

Methodology: A quantitative descriptive survey approach was used to evaluate the knowledge regarding stem cell therapy. The study was conducted in D.Y. Patil Hospital, Kolhapur. Non-probability Purposive sampling technique was used to select 100 samples. The tool used for the data collection was self-administered structured knowledge questionnaire which comprised of 05 items on Socio-demographic data and 21 items on knowledge regarding Stem cell therapy.

Result: The result indicates that among 100 Staff Nurses who gave data, Majority of the subjects belonged to the age group of 21-30 years 56(56%), where as minimum 1 (1%) of age group belonging to age group 41 & above. Gender wise the majority of 69 (69%) staff Nurses were female and minimum of 31 (31%) were male. In area of working, Maximum were working in General ward 60(60%), & minimum were in OPD 5(5%) as well in casualty 5(5%). The experience of staff nurses in years i.e. 0-1 years were 19 (19%), 1.1-2 years were 36(36%) & 2.1-3 years were 45(45%). In terms of previous knowledge on stem cell therapy among staff nurses 87(87%) had the previous knowledge through Newspaper, Journals & Social media. In the present study out of 100 staff Nurses, maximum (64%) were having Average knowledge and (32%) were having poor knowledge and 04 (04%) were having Poor knowledge regarding Stem cell therapy among Staff Nurses. The mean score of knowledge regarding Stem cell therapy among staff nurses working in D.Y. Patil Hospital was 9.24 & Standard Deviation was 3.088.

As The use of stem cell therapy is emerging trend in Medical field there is a need to provide informational booklet on stem cell therapy.

KEYWORDS

I: INTRODUCTION:

The general designation “stem cell” encompasses many distinct cell types. Commonly, the modifiers, “embryonic,” and “adult” are used to distinguish stem cells by the developmental stage of the animal from which they come, but these terms are becoming insufficient as new research has discovered how to turn fully differentiated adult cells back into embryonic stem cells and, conversely, adult stem cells, more correctly termed “somatic” stem cells meaning “from the body”, are found in the fetus, placenta, umbilical cord blood and infants.²

Stem cells have the ability to build every tissue in the human body, hence have great potential for future therapeutic uses in tissue regeneration and repair. In order for cells to fall under the definition of “stem cells,” they must display two essential characteristics. First, stem cells must have the ability of unlimited self-renewal to produce progeny exactly the same as the originating cell. This trait is also true of cancer cells that divide in an uncontrolled manner whereas stem cell division is highly regulated. Therefore, it is important to note the additional requirement for stem cells; they must be able to give rise to a specialized cell type that becomes part of the healthy animal.¹

The promises of cures for human ailments by stem cells have been much touted but many obstacles must still be overcome. First, more human pluripotent and multipotent cell research is needed since stem cell biology differs in mice and men. Second, the common feature of unlimited cell division shared by cancer cells and pluripotent stem cells must be better understood in order to avoid cancer formation. Third, the ability to acquire large numbers of the right cells at the right stage of differentiation must be mastered. Fourth, specific protocols must be developed to enhance production, survival and integration of transplanted cells. Finally, clinical trials must be completed to assure safety and efficacy of the stem cell therapy. When it comes to stem cells, knowing they exist is a long way from using them therapeutically³.

II : Methods And Data Collection : After deep review of literature as

well as discussion with guide and experts, the tool on socio-demographical data and Structured knowledge questionnaire on knowledge regarding stem cell therapy were developed to identify the the knowledge regarding stem cell therapy among staff nurses at D. Y. Patil Hospital in view to develop an informational booklet at Kolhapur”

Prior permission was obtained from the Medical officer & concerned authority from Hospital. The investigator introduced him to the respondents for gaining maximum co-operation, and willingness of the participants was ascertained. By using non-probability Purposive sampling technique 100 staff Nurses of D.Y. Patil Hospital, Kolhapur were selected. Structured knowledge questionnaire were used to assess the knowledge regarding stem cell therapy among Staff Nurses. The researcher collected the data from the subjects. & were recorded systematically on each subject and were organized in a way that facilitates computer entry and data analysis.

III: DISCUSSION:

The present study has been undertaken to assess the knowledge regarding stem cell therapy among staff Nurses of D.Y. Patil Hospital, Kolhapur with a view to develop information booklet.

1) Characteristics of Selected Socio- Demographic Variables.

- Majority of staff nurses 56% belongs to 21 – 30 age, 43% belongs to age 31 – 40 and 1% belongs to 41 & above.
- Majority of staff nurses are female 69% and male are 31%.
- Majority of staff nurses working area is 60% in general ward, 21% in ICU, 9% in OT, 5% in OPD, & 5% in casualty.
- The majority of staff nurses having years in experience of 2.1 & above is 45%, 1.1 – 2 year is 36%, & 0 – 1 year is 19%.
- Majority of staff nurses having previous knowledge on stem cell therapy resulting for YES 87% & NO 13%.

2) Based on the first objective: To identify the knowledge regarding stem Cell Therapy.

In the present study researcher found that knowledge scores among staff Nurses were distributed as majority 64% had average knowledge, 32% had poor knowledge, & 4% had good knowledge about stem cell therapy. A similar quantitative survey was carried out from 100 staff Nurses working in Hospital at Mangluru. It was observed that 48% of staff nurses were of age group 26-30 years and most of the staff nurses were females (82%) and only 18% were male nurses. The maximum of staff nurses participated in the study were GNM's (58%). Results also showed that majority of staff nurses (61%) belongs to Christian religion with maximum of 1-5 years of clinical experience. Most of the staff nurses (89%) had no previous information regarding stem cell therapy. Most (11%) of them had media as their source of information. The study revealed that the total knowledge score was 22, from which maximum staff nurses knowledge score was 14 and the minimum score of staff nurses was 4. The mean and median knowledge score is 8.70 and 8.00 respectively with standard deviation 2.13.⁴

IV: Implications

Implications of the Study

The findings of the study have several implications in different areas which are discussed in following area Nursing Education, Nursing Practice, Nursing Administration, Nursing Research.

Nursing education: The findings of the study revealed that the knowledge regarding stem cell therapy among staff Nurses was comparatively average. So stress should be on inclusion of practical use of stem cell therapy in curriculum. The informational booklet can also be utilized by the staff Nurses, the tool could also be used to identify the knowledge among general public at Kolhapur..

Nursing practice: Nursing practice includes preventive, promotive, curative and rehabilitative services. The present study showed that the majority of Staff Nurses were having average knowledge regarding stem cell therapy. The use of the informational booklet can be used during educational session, which may help to improve knowledge regarding stem cell therapy. There was wide gap between existing and expected levels of knowledge of staff Nurses which indicates and immediate need for education regarding Stem cell therapy.

Nursing Administration: Nurses play a vital role in educating the fellow Nurses public on various emerging trends in Medical practices. The informational booklet can be considered as a source of Information for all the Nurses in various hospitals. The administrating policies can use informational booklet to provide knowledge regarding stem cell therapy for their employees. They can incorporate this in practice.

Nursing Research: The present study conducted by the investigators can be a source of review of literature for others who are intending to conduct similar studies on stem cell therapy among staff Nurses. More studies with attitude of staff Nurses regarding stem cell therapy could also be conducted.

V: CONCLUSION:

Based on the findings of the study, the following conclusions were drawn knowledge scores among 100 subjects, Majority of 64 (64%) were having average knowledge score and 4 (4 %) were having Good knowledge score and 32 (32%) were having poor knowledge score regarding stem cell therapy among staff Nurses. There is need to provide more information using this booklet on stem cell therapy. Through such kind of research studies we would import the knowledge regarding newer trends in future.

VI: REFERENCES

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