Knowledge Regarding Risk Assessment and Prevention of Thromboembolism in Post Operative Patients among Staff Nurses and Nursing Students

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Abstract: _Introduction: Thromboembolism is the hemolytic vascular condition. It is formation of clot (thrombus) in the blood vessel and is carried by the blood stream to plug another vessel. The clot may plug a vessel in the lungs (pulmonary embolism), brain (stroke), gastro Intestinal system, kidneys or leg thromboembolism is a significant cause of morbidity (disease) and mortality (death) especially in adults. Methodology: A Quantitative research approach and descriptive research design was selected. The study includes 30 samples among them 15 Staff nurses and 15 nursing students, by Simple random sampling techniques. The study was conducted in Narayana Medical College Hospital. Structured questionnaire was used to collect the data by interview schedule. Results: The results revealed that there was a significant difference between mean pretest scores and mean post test scores of knowledge regarding antioxidant diet among cardiac patients. The pretest mean knowledge score is 6.18 with SD 2.37 and the post test mean score is 12.73 with SD 1.59. The calculated value of paired't' is 24.22 which is statistically significant at $P < 0.01$ level. Conclusion: The study concludes that the structured teaching programme is effective in enhancing the knowledge regarding antioxidant diet among cardiac patients._

Keywords: Effectiveness, structured teaching programmer, knowledge, cardiac patients, antioxidant diet.

1. Introduction

Health is precious to our life. Blood is one of the specialized organ differ from other organ (exists in fluid state) plays a major role in "Health promotion". For improving the health, the technology and treatment strategy was increased even though the patients admitted with malignancy and major systematic health problems cared, but some of the complication of minor symptoms affects the health in surgical cases, even after surgical correction which may lead to death. The major reason for mortality after surgery was the thromboembolism that is greater among adults and commonly seen among surgical cases.

Normally the thrombi can form because of the balance that is maintained in normal homeostasis has been disrupted. An embolism is a foreign substance that travels through the blood stream. Venous thromboemblism is the vascular problem in the lower extremity can involve, superficial leg veins, the deep veins of the calf veins.

The thromboembolism was common among post operative cases, because the patients were very critically ill, with bed bidden and immobilization. In this case the blood that not returns to the right side of the heart and improves venous stasis. The patients are risk for compromised circulation. Regular ambulation is advised for the hemodynamically stable patient. Once stable most patients are assisted to come out of bed and help to walk to restored the circulatory pump. If the patient is risk for VTE, low-dose heparin or enoxaparin, oral warfarin, inter committent compressions stockings are used.

American College of Chest Physician guidelines: (2005-2013) Identified that as 67,354 cases was definite and 35,123 probable cases of venous thromboemolism, DeepVeinThromboembolism and Pulmonary Embolism were 1.22, 0.78 (95%) and 0.45(95% 0.44-0.45) per 1000 person. One year case fatality rates after definite or probable venous thromboembolism were 10.6% and 23.0%.

2. Problem Statement

"A study to assess the knowledge regarding risk assessment and prevention of thromboembolism in post operative patients among nursing students and staff nurses in NMCH at Nellore".

3. Objectives

- To assess the level of knowledge regarding Risk assessment and prevention of thromboembolism in post operative patients among staff nurses in NMCH, Nellore.
- To assess the level of knowledge regarding Risk assessment and prevention of thromboembolism in post operative patients among nursing students in NMCH, Nellore.
- To compare the level of knowledge between staff nurses and nursing students regarding Risk assessment and prevention of thromboembolism in post operative patients
- To find the association between the level of knowledge regarding Risk assessment and prevention of thromboembolism in post operative patients among staff nurses with their selected socio- demographical variables.
- To find the association between the level of knowledge regarding Risk assessment and prevention of thromboembolism in post operative patients among nursing students with their selected socio-demographic variables.

4. Methodology

The study was conducted by using Quantitative research approach and descriptive design was used for the study, which was conducted in Narayana medical College Hospital, NELLORE, Andrapradesh. A total of 30 samples in those 15 staff nurses and 15 nursing students were studied, by probability simple random sampling technique by lottery method Structured questionnaire was used to collect the data. Data was analyzed by using descriptive and inferential statistics. Percentage of categorical variables was computed.

Description of the tool

A self structured questionnaire which consist of 45 closed multiple choice questions which was developed by the investigator to assess the knowledge regarding care of patient undergoing radiation therapy among staff nurses and nursing students. Each right answer scores 1 mark and wrong answer scores 0 marks. >70% Adequate knowledge, 70 – 50% Moderately Adequate knowledge, <50% Inadequate knowledge.

Data collection procedure

The data collection procedure was carried out for a period of 2 weeks from 4.04.2015 to 16.04.2015 after obtaining permission from the Medical Superintendent and Nursing Superintendent in NMCH at Nellore. 15 staff nurses and 15 nursing students were selected in NMCH at Nellore. Informed consent was obtained from the subjects after explaining the purpose and nature of study. 30 nurses who fulfill inclusion criteria were selected by using simple random technique. Data was collected by using structured questionnaire to assess the knowledge regarding risk assessment and prevention of thromboembolism in post operative patients among staff nurses and nursing students. It was took 30 mts for each nurse to complete the questionnaire. The data was analyzed and tabulated according to the objectives.

5. Result

Table 1: Frequency and percentage distribution based on the socio - demographical variables among staff nurses

S.No	Demographic variables	Staff nurses	
		(f)	**(%)**
1.	Age a) 22-24 years	15	100
2.	Gender a) Female	15	100
3.	Educational qualification a) B.Sc(N)	15	100
4.	Professional experience a) Below 1 year b) 1-3 years	8 7	54 46

Table 1: shows that with regards to age 15(100%) were between 22-24 years, in gender 15(100%) were female, 15(100%) were completed B.Sc(N), 8(54%) were below 1 year experience, 7(46%) were having 1-3 years experience.

Table 2: Frequency and percentage distribution based on the socio - demographical variables among nursing students

S.No	Demographic variables	Nursing students	
		(f)	**(%)**
1.	Age a) 18-19 years b) 20- 21 years c) 22 and above	2 11 2	13.3 73.4 13.3
2.	Educational qualification a) B.Sc(N)	15	100
3.	Attended any CNE programme a) Not attended b) Attended	13 2	86.7 13.3

Table 2: shows that with regard to age 2(13.3%) student is between 18- 19 years,11(73.4%) were between 20- 21 years, 2(13.3%) were between 22 years and above,15(100%) were studying B.Sc(N), 13 (86.7%) were not attended any CNE , 2(13.3%) were attended CNE related to thromboembolism.
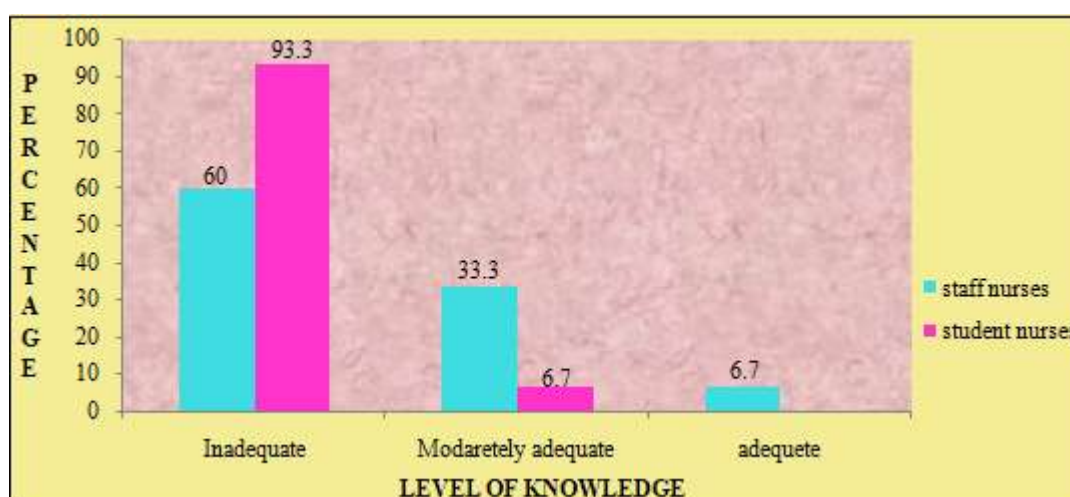

Figure 1: Comparison of level of knowledge regarding risk assessment and prevention of thromboembolism in post operative patients between staff nurses and nursing students.

Table 3: Comparison of level of knowledge between staff nurses and nursing students with their mean & standard deviation (N=30)

Samples	Mean	Standard Deviation
Staff Nurses	20.3	4.74
Nursing Students	16.2	3.16

Table no.3 shows that with regard of comparison of mean and standard deviation between staff nurses and nursing students. Mean Knowledge score of staff nurses is 20.3 with standard deviation of 4.74 and the mean score of nursing students is 16.2 with standard deviation of 3.16.

Table 4: Association of level of knowledge of staff nurses regarding risk assessment and prevention of thromboembolism in post operative patients with their selected socio demographical variables, (N=15)

S. No	Socio Demographic variables	Inadequate		Moderately adequate		Adequate		Chi-square (X^2)
		F	%	F	%	F	%	
1	Experience a. below 1 year b. 1-3 years	5 4	33.3 26.7	2 3	13.3 20	- 1	- 6.7	C=1.2627 T=5.99 df = 2 **NS** P= 0.05
2	Source of information a. CNE b. regular journal reader c. Seminar d. Curriculum	1 2 1 5	6.7 13.3 6.7 33.3	- 1 1 3	- 6.7 6.7 20	- - - 1	- - - 6.7	C=1.51405 T=12.592 df = 6 **NS** P=0.05
3	CNE a. Yes b. No	2 7	13.3 46.7	- 5	- 33.3	- 1	- 6.7	C=1.5313 T=5.991 df=2 **NS** P=0.05

Table No. 4 shows that association of level of knowledge of staff nurses regarding risk assessment and prevention of thromboembolism in post operative patients with their selected socio demographic variables with regard of demographic variables of staff, the experience, source of information, CNE programme were non significant.

Table 5: Association Between level of knowledge of nursing students regarding risk assessment and prevention of thromboembolism in post operative patients with their selected socio demographical variables (N=15)

S. No	Socio Demographic variables	Inadequate		Moderately Adequate		Adequate		Chi-square (X^2)
		F	%	F	%	F	%	
1	Age in years a. 18-19 yrs b. 20-21 yrs c. 22-23 yrs	2 10 2	13.3 66.7 13.3	- 1 -	- 6.7 -	- - -	- - -	C=2.569 T=9.488 df= 4 **NS** P=0.05
2	Source of information a. curriculum b. Text books c. Internet d. All the above	- 5 5 4	- 33.3 33.3 26.7	1 - - -	6.7 - - -	- - - -	- - - -	C=16.605 T=12.592 df= 6 **S*** P=0.05
3	CNE Programme a. Yes b. No	2 12	13.3 80	- 1	- 6.7	- -	- -	C=1.6459 T=5.991 df= 2 **NS** P=0.05

Table No. 5 shows that the association of level of knowledge of Nursing students regarding risk assessment and prevention of thromboembolism in post operative patients with their selected socio demographical variables .With regard of demographic data of Nursing students in that source of information had significant. Rest of the variables like CNE programme and age in years were non significant.

6. Discussion

This study was conducted in Narayana medical College Hospital, NELLORE, Andrapradesh. A total of 30 samples in those 15 staff nurses and 15 nursing students were studied, association of level of knowledge of staff nurses regarding risk Assessment and prevention of thromboembolism in post operative patients with their selected socio demographic variables with regard of demographic variables of staff, the experience, source of information, CNE programme were non significant

Kumar Nidhi (2014) conducted a study to assess the effectiveness of a structured teaching programme on knowledge of staff nurses regarding risk factors and prevention of deep vein thrombosis. A quasi experimental approach with purposive sampling technique was used in the study. A structured knowledge questionnaire was prepared and was given to 40 staff nurses working in cardiac ICUs and neuro ICUs of a selected hospital, Ludhiana, Punjab. The findings of the study shows that the difference between pre test mean knowledge score of control and experimental group was statistically non significant at p< 0.05 level whereas the difference between post test mean knowledge score of both groups was statistically highly significant at p< 0.001 level. It was thus concluded that the structured teaching programme was effective in raising the knowledge level of staff nurses regarding risk factors and prevention of deep vein thrombosis and there was statistically significant effect of age, professional qualification, total years of experience and type of training institute on knowledge level of staff nurses regarding risk factors and prevention of deep vein thrombosis.

Association of level of knowledge of nursing students regarding risk assessment and prevention of

thromboembolism in post operative patients with their selected socio demographical variables .With regard to demographic data of student nurses in that source of information had significant. Rest of the variables like CNE programme and age in years were non significant.

M.E John, A.A. Effiong et al [2009] conducted a study on assessment and management of pain in thromboembolism cases during hospitalization in calabor, of the 50 nurses interviewed 84% assessed pain before managing it. While 16% did not of those who assessed pain 100% assessed location, duration of pain, and pattern and aggravating alleviating factors, 54% assessed pain quality, 46% assessed effect of pain in lower limbs, 40% assessed associated symptoms and only 18% assessed intensity of pain in thromboembolism cases. The techniques used for pain assessment during immobilization were observation of pain, related behaviors and vital signs. No nurses used any graphic or numerical tool to assess pain quality or intensity. The reasons are being unavailability of such tools in hospitals and also the knowledge level of the nurses.

7. Conclusion

The study concluded that staff nurses had adequate knowledge regarding Risk assessment and prevention of thromboembolism in post operative patients when compare to nursing students.

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