IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A STUDY TO ASSESS THE EFFECT OF EDUCATIONAL INTERVENTION ON KNOWLEDGE REGARDING PREVENTION OF COMPLICATIONS OF IMMOBILIZATION AMONG ORTHOPEDIC PATIENTS ADMITTED IN SELECTED HOSPITALS

[1]Mrs. Ceena Bejoy, [2]Dr. Mrs. Rupali Salvi, [3]Dr. Mrs. Nisha Naik, [4]Mrs. Nidhi Rajput, [5]Mrs. Jithya P M, [6]Group B – II Year P.B.B.Sc Nursing

[1]Clinical Instructor, [2]Principal & Professor, [3] Associate Professor, [4]Assistant Professor, [5] Assistant Professor, [6]II Year P.B.B.Sc Nursing students

[1] Medical Surgical Nursing, [2]Community Health Nursing, [3]Psychiatry Nursing, [4] Medical Surgical Nursing, [5] Obstetrics and Gynaecology Nursing

[1] Dr. D Y Patil Vidyapeeth, Pune, Dr. D Y Patil College of Nursing, Pune, India

Abstract: This study is been undertaken to assess the effect of educational intervention regarding prevention of complications of immobilization among orthopedic patients. *Objective:* To assess the knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals. To evaluate the effect of educational intervention regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals. To find out the association between association between pretest knowledge scores with the demographic variables. *Method:* One group pretest post was adopted as study design and involved 60 orthopedic patients. The pretest was conducted followed by educational intervention and after 7 days post test was conducted. Outcomes were stated that knowledge among the orthopedic patients in selected hospitals improved remarkably after educational interventions. Result: Educational interventions were found to be significantly effective in improving the knowledge of the orthopedic patients and there was significant association between knowledge score with the diet. Conclusion*:* The overall study findings concluded that educational intervention is an effective strategy in improving knowledge regarding prevention of complications of immobilization among orthopedic patients**.**

Key words- Prevention of complications of immobilization, Orthopedic patients.

I. INTRODUCTION

Immobility is widely documented in the literature as a cause of increased mortality and complications. The musculoskeletal system is severely affected by immobility and prolonged bed rest. Orthopedic patients will have impairment in immobility results from prescribed restriction of movement in the form of prolonged bed rest, physical restriction of movement or impairment of motor skeletal function, prolonged bed rest and immobilization inevitably lead to complications. Such complications are much easier to prevent than to treat.[1] Patients on the orthopedic service are almost immobilized due to fracture, road traffic accident or surgery either for short duration or for extended period of time which ultimately leads to complications like deep vein thrombosis, orthostatic hypertension, muscle atrophy, osteoporosis, contracture, pulmonary embolism, pneumonia, atelectasis, urinary tract infection, calculi, pressure ulcer and constipation. [1] Among this all complications according to previous study on complications of immobilization, pulmonary embolism is a serious medical complication with life threatening consequences, which form of deep vein thrombosis. Up to 20% of all deaths occurring in hospitals are a result of pulmonary embolism. Pulmonary embolism was shown to be present in 50% of patients who die in hospital; but less than 50% of the patients who died were suspected of having pulmonary embolism prior to death. [2]

OBJECTIVES

1. To assess the knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.
2. To evaluate the effect of educational intervention regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.
3. To find out the association between association between pretest knowledge scores with the demographic variables.

II. INTRODUCTION

An Evaluative approach was aimed for assessing the effectiveness of educational intervention regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals. The study protocol was approved by the Institutional Scientific Committee and the Ethics Committee (DYPV/CON/253/2021). The sampling frame consisted of orthopedic patients admitted in selected hospitals. The researcher has adopted pre-experimental One group pretest - posttest design the researcher has adopted pre-experimental One group pretest - posttest design was followed. The data was collected using a self-designed, close-ended, validated and pilot-tested, self- administered, questionnaire. The first section of the questionnaire had questions related to Age, Gender, Education, Occupation, Religion, Marital Status, Monthly income, Diet. The assessment tool consisted of structured knowledge questionnaire designed for the study consists of 20 multiple choice questions. Each question has four options which include one right answer Each correct answer carries 1 mark and wrong answer carries 0 Mark. The score is categorized into 0 - 6 = Poor Score, 7 – 14 = Average Score, 15 – 20 = Good Score. Total Score: 20. The data was collected and the participation was voluntary. A structured knowledge questionnaire was prepared for data collection, and was distributed to the orthopedic patients. Those willing to participate were asked to sign the consent form. Informed consent form was collected and the structured knowledge questionnaire were distributed. The collected data was analyzed using IBM SPSS (Statistical Package for Social Sciences) version 21.0 for Windows. The findings were expressed in terms of percentages, mean and standard deviation. ANOVA was used to check the mean difference between the domains .P-value less than 0.05 was considered as significant.

III. RESULTS

Orthopedic patients were invited to participate in the survey. Table 1 : It indicates 23.3% of the orthopedic patients had age 18-27 years, 15% of them had age 28-37 years, 21.7% of them had age 38-47 years, 26.7% of them had age 48-57 years and 13.3% of them had age above 57 years. 60% of them were males and 40% of them were females. 28.3% of them had primary education, 38.3% of them had secondary education, 21.7% of them were undergraduates and 11.7% of them were postgraduates. 30% of them had daily wages, 36.7% of them had service, 6.7% of them had business and 26.7% of them were unemployed. 18.3% of them were unmarried, 65% of them were married and 16.7% of them were widow. 35% of them had monthly income of ≤ Rs. 10,000/- , 30% of them had had monthly income of Rs. 10,001/- to Rs. 20,000/- , 28.3% of them had monthly income of Rs. 20,001/- to Rs. 30,000/- and 6.7% of them had monthly income of ≥ Rs. 30,000/- . 45% of them were vegetarians and 55% of them were non-vegetarians.

Table 1: Description of samples (orthopedic patients) based on their personal characteristics in terms of frequency and percentage.

N=60

Demographic variable	Freq	%
Age		
18 - 27 years	14	23.3%
28 - 37 years	9	15.0%
38 - 47 years	13	21.7%
48 - 57 years	16	26.7%
≥ 58 years	8	13.3%
Gender		
Male	36	60.0%
Female	24	40.0%
Education		
Primary	17	28.3%
Secondary	23	38.3%
Undergraduate	13	21.7%
Postgraduate	7	11.7%
Occupation		
Daily wages labourer	18	30.0%
Service	22	36.7%
Business	4	6.7%
Unemployed	16	26.7%
Marital Status		
Unmarried	11	18.3%
Married	39	65.0%
Widow	10	16.7%

Monthly Income		
≤ Rs. 10,000/-	21	35.0%
Rs. 10,001/- to Rs. 20,000/-	18	30.0%
Rs. 20,001/- to Rs. 30,000/-	17	28.3%
≥ Rs. 30,000/-	4	6.7%
Diet		
Vegetarian	27	45.0%
Non-Vegetarian	33	55.0%

Table 2: The knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

N=60

Knowledge	**Pretest**	
	Freq	**%**
Poor (Score 0-6)	46	76.7%
Average (Score 7-13)	14	23.3%
Good (Score 14-20)	0	0.0%

Table 2 depicts the knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.76.7% of the orthopedic patients had poor knowledge (Score 0-6) and 23.3% of them had average knowledge (score 7-13) regarding prevention of complications of immobilization.

Table 3: Effect of educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

N=60

Knowledge	**Pretest**		**Posttest**	
	Freq	**%**	**Freq**	**%**
Poor (Score 0-6)	46	76.7%	0	0.0%
Average (Score 7-13)	14	23.3%	14	23.3%
Good (Score 14-20)	0	0.0%	46	76.7%

Table 3 depicts in pretest, 76.7% of the orthopedic patients had poor knowledge (Score 0-6) and 23.3% of them had average knowledge (score 7-13) regarding prevention of complications of immobilization. In posttest, 23.3% of the orthopedic patients had average knowledge (score 7-13) and 76.7% of them had good knowledge (Score 14-20) regarding prevention of complications of immobilization. This indicates that the knowledge among orthopedic patients improved remarkably after educational interventions regarding prevention of complications of immobilization.

Table 4: Paired t-test for the effect of educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

N=60

	Mean	**SD**	**T**	**df**	**p-value**
Pretest	5.2	1.9	24.0	59	0.000
Posttest	16.4	3.1			

Table 4 depicts the paired t-test for the effect of educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals. Average knowledge score in pretest was 5.2 which increased to 16.4 in posttest. T-value for this test 24 with 59 degrees of freedom. Corresponding p-value was small (less than 0.05), null hypothesis is rejected. It is evident that the knowledge among orthopedic patients improved significantly after educational interventions regarding prevention of complications of immobilization.

Table 5: Fisher's exact test for the association between knowledge regarding prevention of complications of immobilization and demographic variables

N=60

Demographic variable		Knowledge		p-value
		Average	Poor	
Age	18 - 27 years	5	9	0.156
	28 - 37 years	3	6	
	38 - 47 years	1	12	
	48 - 57 years	5	11	
	≥ 58 years	0	8	
Gender	Male	9	27	0.765
	Female	5	19	
Education	Primary	2	15	0.602
	Secondary	6	17	
	Undergraduate	4	9	
	Postgraduate	2	5	
Occupation	Daily wages labourer	6	12	0.687
	Service	4	18	
	Business	1	3	
	Unemployed	3	13	
Marital Status	Unmarried	4	7	0.554
	Married	8	31	
	Widow	2	8	
Monthly Income	≤ Rs. 10,000/-	5	16	0.595
	Rs. 10,001/- to Rs. 20,000/-	4	14	
	Rs. 20,001/- to Rs. 30,000/-	3	14	
	≥ Rs. 30,000/-	2	2	
Diet	Vegetarian	2	25	0.013
	Non-Vegetarian	12	21	

Table 5 depicts the p-value corresponding to diet was small (less than 0.05), the demographic variable diet was found to have significant association with the knowledge among orthopedic patients regarding prevention of complications on immobilization.

IV. DISCUSSION

The present study assesses the knowledge of orthopedic patients in selected hospitals before and after administration of educational interventions regarding prevention of complications of immobilization. In the present study, the investigator had administered educational interventions regarding prevention of complications of immobilization to improve the knowledge of the samples. The mean posttest knowledge score was 16.4 higher than the mean pretest knowledge score 5.2 with the mean difference of 11.2 which was statistically proved and it revealed that the educational interventions regarding prevention of complications of immobilization was effective in terms of knowledge among the samples.

Thus, the researcher identified that the educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals is very effective in improving the knowledge regarding prevention of complications of immobilization.

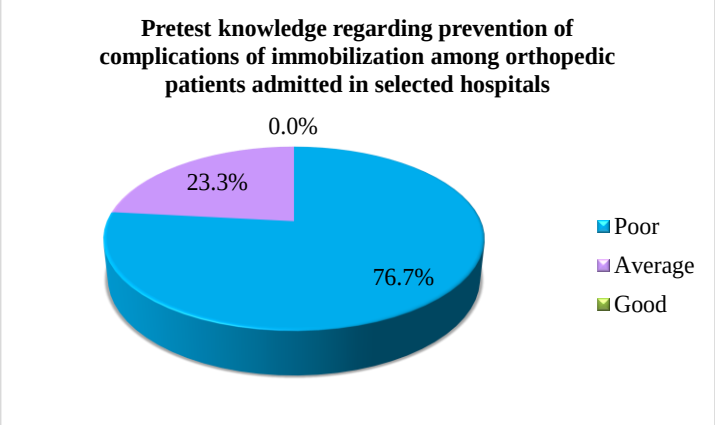

Figure 1 : The knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

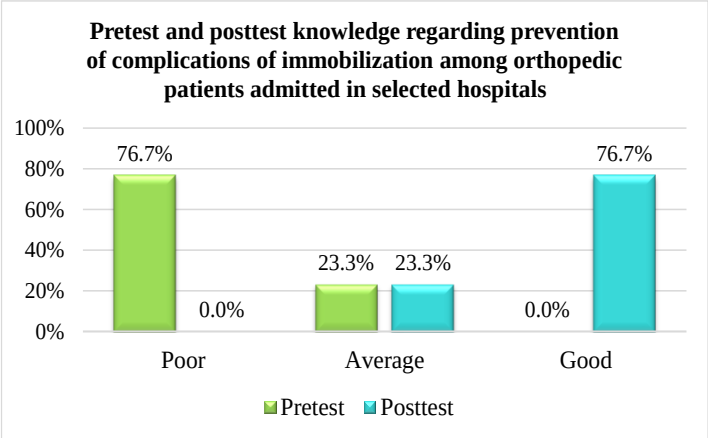

Figure 2 : Effect of educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

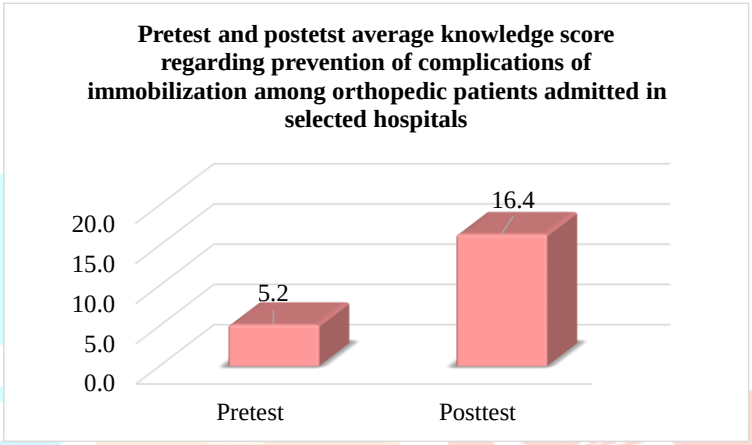

Figure 3 : Paired t-test for the effect of educational interventions regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals.

IV. ACKNOWLEDGMENT

I would like to express my special thanks of gratitude to our Principal, Dr. Mrs. Rupali Salvi and Research Co-ordinator Dr. Mrs. Nisha Naik, who gave the golden opportunity to do this wonderful project on the topic "A study to assess the effect of educational intervention on knowledge regarding prevention of complications of immobilization among orthopedic patients admitted in selected hospitals".

Secondly, would also like to thank my students Gundre Sunita Sidram, Kapare Akshata Subhash, Kasbe Ashvini Shahu, Khairnar Gayatri Rajendra, Km Kajal Verma, Mahind Laxmi Rajaram, Malvi Mrunali Pravin, Muke Swapnali Kantaram, Mule Sagar for the contribution in the research project.

REFERENCES

[1] Black M. Joyce, " Medical surgical nursing", 7th edition; Elsevier Publications, New Delhi, Pp.534-537
[2] Basvanthappa B T.,"Medical surgical nursing", 1st edition, , Jaypee Brothers publications private limited, New Delhi, Pp. 503
[3] Brunner & Siddhartha's, "Text book of medical surgical nursing", 11th Edition, Elsevier publishers, New Delhi, Pp.2435-2443
[4] Lewis & Heitkemper, "Medical surgical nursing, assessment and Management of clinical problems", 7th edition, Elsevier publication, India Private Limited, Noida, Pp. 1649-1660
[5] Lippincott, "Medical – Surgical Nursing", 9th edition, published by Wolters Kluwer (India) Private limited, New Delhi, Pp.1100, 1130-1132
[6] Long Phipps Cassmeyer, " Medical Surgical Nursing", 3th edition, Mosby Publication, Pp. 1419-1421
[7] Susan C. Devit, "Medical Surgical Nursing concepts & practice", 1st Edition, Elsevier publications, Pp. 786-790
[8] Tayler C, Lillis C, Lemone P, Lynn P., "Fundamentals of nursing", The Art and Science of Nursing care, 6th edition, Lippincott Williams & Wilkins, Pp. 1109, 1116-1118
[9] Barbara Kozier, " Fundamentals of Nursing, Concepts, Process & Practice,"7th Edition, published by Pearson Education (Singapore), Pvt ltd. India, Pp. 1125-1126
[10] Potter and Perry, "Fundamental of nursing", 6th edition, Mosby Elsevier Publishers, India, Pp. 931, 1519, 1618