



Effectiveness Of Individualized Education Program On Blood Thinners Among Patients In A Selected Hospital”

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Abstract: In today’s medical landscape, understanding blood thinners is crucial for cardiac and neurological patients to mitigate the risk of life threatening complications like strokes or heart attacks. Knowledge of mechanisms, dosages, and potential side effects empowers patients, fostering better adherence and outcomes while minimizing adverse events. A study aimed to assess an individualized education program on blood thinners among 60 cardiac and neurological patients at a selected hospital. The objectives of the study were to assess the pretest knowledge regarding blood thinners among patients in a selected hospital, to determine the effectiveness of individualized education program on blood thinners among patients in a selected hospital and to determine the association between pretest knowledge score on blood thinners with their demographic variables in a selected hospital. Using a pre-experimental approach with non-probability purposive sampling, researchers evaluated patients’ pre-test knowledge and demographic variables through structured questionnaires. And the data were collected and analyzed by using descriptive and inferential statistics. Results indicated varying levels of knowledge: 1.67% had average, 31.67% good, and 66.67% very good knowledge. Significant associations between pre-test knowledge and demographic variables were identified, highlighting the program’s effectiveness in enhancing patient understanding of blood thinners.

Introduction: Cardiovascular disease ranks as the leading cause of death in the United States and globally, with significant impact on mortality rates. Blood thinners are crucial medications that prevent blood clot formation in heart disease patients, reducing risks of heart attacks and strokes. However, they also have risks such as increased bleeding, especially during procedures like line insertions. Despite their lifesaving benefits, many patients lack awareness about blood thinners, leading to complications and insufficient management of side effects like heavy bleeding from minor injuries or bleeding gums. A recent study in Pune revealed that 70% of cardiac patients had only average knowledge about anticoagulation therapy, emphasizing a critical need for educational interventions to enhance patient understanding and ensure safer medication usage.

OBJECTIVES:

1. To assess the pre-test knowledge regarding blood thinners among patients in a selected hospital.
2. To determine the effectiveness of individualized education program on blood thinners among patients in a selected hospital.
3. To determine the association between pre-test knowledge score on blood thinners with their demographic variables in a selected hospital.

METHODOLOGY

RESEARCH APPROACH: To accomplish the objectives of the study, Quantitative approach was found to be appropriate for the present Study. **RESEARCH DESIGN:** Pre-experimental study-one group pre-test post-test design was adopted to assess the effectiveness of individualized education program on blood thinners among patients in a selected hospital. **POPULATION:** The population includes individuals meeting the researcher's criteria of interest, such as cardiovascular and neurological patients who are on blood thinners. **SAMPLE AND SAMPLING TECHNIQUE:** The study sampled 60 cardiovascular and neurological patients on blood thinners using purposive sampling, a non-probability technique. **Tool for Data Collection:** A questionnaire was developed by the investigators for assessing the knowledge of cardiac and neurological patients taking blood thinners. It was constructed into two parts:

Tool I : Baseline Proforma

Tool II : Knowledge Questionnaire

Tool 1: Baseline Proforma; consists of 12 items such as gender, age, marital status, education, occupation, monthly income, duration of taking blood thinners, family history of cardiovascular and neurological disease, assistance for taking blood thinners, previous knowledge, habit and food preference.

TOOL 11: KNOWLEDGE QUESTIONNAIRE; Knowledge questionnaire consist of 18 multiple choice questions. In that the questions are related to precautions and preventions, side effects, complications and management of blood thinners.

ANALYSIS AND INTERPRETATION

SECTION 1: DESCRIPTION OF DEMOGRAPHIC VARIABLES



Section 2: Knowledge of patients regarding the effect of an individualized education Program.

Frequency and percentage distribution of knowledge score of cardiac and neurological patients regarding the individualized education program on knowledge on blood thinners(N=60)

Category	Pre test		Post test	
	Frequency(f)	Percentage(%)	Frequency(f)	Percentage(%)
Average	14	23.33%	1	1.67%
Good	43	71%	19	31.67%
Very good	3	5%	40	66.67%

The above table shows that 23.33% of the samples had average knowledge, 71% had good knowledge and 5% had very good knowledge in the pretest. In the post test 66.66% of the samples had very good knowledge, 31.67% of sample had good knowledge and 1.67% of sample had average knowledge.

SECTION 3: Effectiveness of individualized education program on the level of knowledge of the patients regarding blood thinners.

Test	mean	SD	Mean Difference	Df	t-test	p-value
Pretest	8	2.39	5.300	59	1.6585	p>0.05
Posttest	13.3	2.73				

Significant at 0.05 level

The table 14 shows that the mean of post-test knowledge score 13.3 was significantly higher than their mean pre-test knowledge score 8 with mean difference of 5.300 the calculated paired “t” value (1.6585) is greater than the tabled value (0.5272) at 0.05 level of significant. So, the research hypothesis is accepted and the null hypothesis is rejected.

Section 4: Association between pretest knowledge of patients on blood thinners with their socio-demographic variables.

Variable	Very good	Good	Average	χ^2	df	P-value	Inference
Age							
18-30	0	0	0	3.972	2	0.137	NS
31-60	2	31	6				
61-85	1	12	8				
Gender							
Male	2	27	8	0.17	2	0.9158	NS
Female	1	16	6				
Marital status							
Married	3	39	12	0.642	2	0.7254	NS
Un married	0	4	2				

Education							
illiterate	0	0	0	20.933	2	0.0216	S*
Primary	1	5	5				
High school	0	4	6				
High secondary	2	14	3				
Graduate	0	12	0				
Post graduate	0	8	0				
Occupation							
Employed	1	22	6	0.576	2	0.7494	NS
Unemployed	2	21	8				
Monthly income							
Below 5000	2	34	9	1.348	2	0.5097	NS
Above 5000	1	9	5				
Duration of taking blood thinners							
Below 1 year	1	38	11	6.145	2	0.0405	NS
Above 1 year	2	5	3				
Family history							
Yes	1	23	9				
No	2	20	5	1.096	2	0.5781	NS
Assistance to take blood thinners							
Self	3	20	4	6.247	2	0.3960	NS
Life partner	0	9	4				
Mother	0	4	3				
Children	0	10	3				
Information							
Yes	1	20	7	0.277	2	0.8711	NS
No	2	23	7				
Habit							
Nil	1	30	10	1.801	2	0.4062	NS
Alcohol & smoking	2	13	4				
Food preference							
Vegetarian	0	4	6	9.193	2	0.0101	S*
Non -vegetarian	3	39	8				

*significant at 0.05 level, NS-not significant

Data present in the table reveals that's the calculated chi- square value for the education 20.933 was greater than that of the table value (0.0216) with second degree of the freedom, the chi-square value of food preference 9.193 is greater than that of table value (0.0101) with second degree of freedom at 0.05 level of significant. Hence the research hypothesis can be accepted and there is a significant association between the pretest knowledge on patients with education and food preference.

DISCUSSION

The present study revealed that education plays an important role in understanding and improving the knowledge about blood thinners. The proportion of knowledge was high among those who have an educational qualification of graduation and above, and level of knowledge was low among those who have educational status below higher secondary school education. Thus, it was identified that the knowledge was positively associated with education level of the study participants. Also there is significant association with food preference of the patients as some ingredients in the food may hinder the absorption of blood thinners into the body. Apart from that the level of knowledge of the patients regarding blood thinners was significantly higher than their mean pretest knowledge score.

CONCLUSION

Patient education is considered as an essential component in improving knowledge of patients about blood thinners. The main objectives of the study were to assess the effectiveness of individualized Education program among cardiac and neurological patients. The conceptual frame work adopted for the study was Betty Neuman system model. In conclusion, this study underscores the critical role of patient education and personalized care in optimizing the management of blood thinners among patients with cardiovascular and neurological conditions. The findings highlight that individualized education programs significantly enhance patient knowledge about medication use, fostering improved adherence and reducing the risk of adverse events associated with thrombotic disorders. These insights emphasize the importance of healthcare providers in tailoring treatment strategies to meet individual patient needs, thereby enhancing therapeutic outcomes and promoting better patient outcomes in clinical practice.

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