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TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE ABOUT WARFARIN THERAPY AMONG PATIENTS WITH CARDIOVASCULAR DISEASE.

Nursing

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ABSTRACT

Background: Warfarin has been found to be associated with a number of complications especially bleeding. Patients' knowledge on warfarin can improve anticoagulation control with decrease in adverse drug reaction and other associated complications[1].

***Objectives*:** 1. To assess the existing knowledge about warfarin therapy among patients with cardiovascular disease. 2. To evaluate the effectiveness of video assisted teaching on knowledge about warfarin therapy among patients with cardiovascular disease. 3. To associate the knowledge scores with demographic variables.

Material and methods: Total 60 patients suffering from cardiovascular disease undergoing warfarin therapy were included in this study. Pre experimental one group pre test post test research design were used for the present study. Non-probability purposive sampling techniques were used for the selection of samples.

Results: There is a significant difference between pre test and post test knowledge scores on knowledge about warfarin therapy.

KEYWORDS

Cardiovascular disease, Video assisted teaching, Knowledge and Warfarin therapy

INTRODUCTION

Warfarin is utilized for the treatment of thromboembolic disease. Its use demands a careful and continual monitoring given its narrow therapeutic index and potentially life-threatening complications. The aim of this study was to assess the extent of patients' knowledge of their warfarin therapy[2].

Warfarin is a commonly prescribed oral anticoagulant worldwide. Its mechanism of action is through vitamin K epoxide reductase inhibition, which prevents carboxylation and reduction of extrinsic coagulation factors 2, 7, 9, and 10[3].

MATERIAL AND METHODS

Aim*:* To evaluate the effectiveness of video assisted teaching on knowledge about warfarin therapy among patients with cardiovascular disease.

Objectives*:*

1. To assess the existing knowledge about warfarin therapy among patients with cardiovascular disease.
2. To evaluate the effectiveness of video assisted teaching on knowledge about warfarin therapy among patients with cardiovascular disease.
3. To associate the knowledge scores with demographic variables.

METHODS AND MATERIAL:

An interventional approach was planned to evaluate the effectiveness of video assisted teaching on knowledge about warfarin therapy among patients with cardiovascular disease. A total of 60 patients were selected who were suffering from cardiovascular disease and undergoing warfarin therapy at Wardha City, Maharashtra. Non-probability purposive sampling technique was used for selection of sample. Pretest was conducted using a self-administered questionnaire. A self made video-assisted teaching on health education regarding knowledge about warfarin therapy was conducted by the investigators after which post test was conducted. The sample size was 60 of both males and female's patients were included in current study. The patients aged between 21 years to more than 45 years were included in this study. All questions were administered to the patients to provide the information on their knowledge about use of warfarin therapy.

Data Collection

The subjects were explained about the nature and purpose of study. A written consent was obtained from the participants prior to their recruitment in the study and permission was granted from the hospital for conducting the study. They were assured about the confidentiality of the data. Self administered questionnaire for pretest on knowledge about warfarin therapy was distributed to the participants and video assisted teaching was given to the participants and based on that post test was conducted.

Ethical consideration: The study was carried out after obtaining permission from the Institutional Ethics Committee (IEC), Datta

Meghe institute of medical sciences (Deemed to be university) Sawangi (Meghe), Wardha.

RESULT

Effectiveness of video assisted teaching on knowledge about warfarin therapy among patient with cardiovascular disease in pre-test and post test, (table no. 4) shows that there is a significant difference between pre test and post test knowledge scores interpreting effectiveness of video assisted teaching on knowledge about warfarin therapy. Mean value of pre test is 5.52 and post test is 17.17 of video assisted teaching on knowledge about warfarin therapy among patients with Cardiovascular Disease. A standard deviation value of pre test is ±1.372 and post test is ±1.107. The calculated t-value is 31.754 and tabulated t- value 2.02 and p-value is 0.000. Hence, it is statistically interpreted that the video assisted teaching on knowledge about warfarin therapy among patients with cardiovascular disease was effective.

Table no. 1: Distribution of subjects according to their demographic variables

Demographic Characteristics	No. of Subjects	Percentage (%)
Age in years		
21-25 years	02	03.4
26-30 years	11	18.3
31-35 years	08	13.3
36 to 40 years	19	31.7
Above 41 years	20	33.3
Gender		
Male	35	58.3
Female	25	41.7
Education		
Illiterate	05	08.3
Primary education	07	11.7
Secondary education	24	40.0
Higher secondary education	12	20.0
Graduate	11	18.3
Graduate and above	01	01.7
Duration of use		
Less than six months	04	06.7
Six months to one year	14	23.3
One to two years	12	20.0
Two to three years	21	35.0
More than three years	09	15.0
Source of information		
Doctors	19	31.7
Nurse	22	36.6
Pharmacists	13	21.7
Others	06	10.0

Table no.2: Pre-test knowledge scores of subjects regarding knowledge about warfarin therapy

Level of knowledge	Score range	Frequency / percentage
Poor	0-4 (1-20%)	31(42%)
Average	5-8(21-40%)	29(48%)
Good	9-12(41-60%)	00(00%)
Very good	13-16(61-80%)	00(00%)
Excellent	17-20(81-100%)	00(00%)
Minimum score	02	
Maximum score	09	
Mean score	5.52±1.372	
Mean percentage	27.5%.	

Table no.3: Post test knowledge scores of subjects regarding knowledge about warfarin therapy among patient with cardiovascular disease.

Level of knowledge	Score range	Frequency / percentage
Poor	0-4 (1-25%)	00(00%)
Average	5-8(26-50%)	02(01%)
Good	9-12(41-60%)	02(03%)
Very good	13-16(61-80%)	24(40%)
Excellent	17-20(81-100%)	32(56%)
Minimum score	14	
Maxi Maximum score	19	
Mean score	17.17±1.107	
Mean percentage	85.85%.	

Table no.4: Effectiveness on video assisted teaching on knowledge of warfarin therapy among patient with cardiovascular disease in pre-test and post test

Tests	Mean score	SD	't'(cal)-value	Degree of Freedom	p-value	Significant
Pre Test	05.52	±1.372	31.754	59	0.000	S, p <0.000
Post Test	17.17	±1.107				

DISCUSSION

The study was conducted among 60 patients (table no. 1) shows that, 20(33.3%) patient belong to the age group of above 41years, 19(31.7%) belong to 36 to 40 years, 11 (18.3%) belong to 26-30 years, 8(13.3%) belong to31-35 years, 02(03.4%) belong to 21-25 years,35(58.3%) were males and 25(41.7) are females. 24(40.0%) got secondary education,12(20.0%) got higher secondary education, 11(18.3%) were graduate, 07(11.7%) got primary education, 05(08.3%) were illiterate and 01(01.7%) were graduate and above, 21(35.0%) had two to three years duration of use, 14(23.3%) had Six months to one year duration of use, 12(20.0%) had One to two years duration of use, 09(15.0%) had more than three years duration of use and 04(06.7%) had less than six months duration of use. The source of information for 22(36.6%) were nurses, for 19(31.7%) were doctors, for 13(21.7%) were pharmacist and for 06(10.0%) were others.

Study conducted by Teoh Boon Ching et.al, they found in their study the mean age of participants was 50.5 years. Majority of patients were male (56.2%), Malays (46.89%) and married (78.1%). A large proportion of patients had only primary (33.6%) and secondary school education (43.0%)[4].

In present study, pre test knowledge scores of subjects (table no. 2), shows that 31(42%) of subjects had poor knowledge score, 29(48%) had average knowledge score. The minimum score is 2, maximum score is 9, mean score is 5.52±1.372 and mean percentage is 27.5%.

In another study findings majority of the patients of our clinic had poor level of knowledge on warfarin. There was a significant association between the INR outcome measure and both the patients' educational level and warfarin knowledge. The frequently few correct-response-generating AKA questions represent potential areas for improvement in patient education. Pharmacists should reevaluate current educational materials and techniques to provide individualized and targeted warfarin patient education[5].

In current study post test knowledge scores of subjects regarding knowledge about warfarin therapy among patient with cardiovascular disease (table no. 3), shows that, 02(01%) were having average knowledge score, 02(03%) were having good knowledge score, 24(40%) were having very good knowledge score and 32(56%) were having excellent knowledge score. The minimum score is 14, maximum score is 19, mean score is 17.17±1.107 and mean percentage is 85.85%.

In this study there was no association found between knowledge scores with selected demographic variables like age, gender, education, duration of use, source of information given by previous information about warfarin therapy, the following research hypothesis is formulated. There was a significant association between levels of knowledge score regarding effectiveness of video assisted teaching on knowledge about warfarin therapy among patients with Cardiovascular Disease with selected demographical variables at 0 .05 level of significant.

Study conducted by Yahaya A.H. M., the Age, income, educational level, literacy and race were significantly correlated with the patient's knowledge of anticoagulation. The study did not find any association between anticoagulation control and the knowledge of anticoagulation.

CONCLUSION

The video assisted teaching was effective for providing knowledge about warfarin therapy based on the above study conducted. There is no significant association found between demographic variable and age, gender, education, duration of use, source of information regarding effectiveness of warfarin therapy among Patients with Cardiovascular Disease taking Warfarin therapy.

REFERENCES

1. Shrestha sweta et.al. Evaluation of patients' knowledge on warfarin in outpatient

pharmacy of a tertiary care cardiac center. BMC Research Notes. 2015; 8: 429.
2. Harikrishnan P, Palaniswamy C, Aronow WS. Update on Pharmacologic Therapy for Pulmonary Embolism. Journal of Cardiovasc Pharmacol Therapy. 2014;19(2):159–169. doi: 10.1177/1074248413506612 . [PubMed] [Google Scholar]
3. Waqas Shuaib et.al, Warfarin Therapy: Survey of Patients' Knowledge of their Drug Regimen, Malays Journal of Medical Sciences. 2014 Jul; 21(4): 37–41.
4. Teoh Boon Ching et.al, Knowledge of warfarin therapy among patients attending Warfarin Clinic at a Public Hospital in Northern part of Malaysian Peninsular, Archives of Pharmacy Practice, original article. volume 7, issue 1, year 2016, page no.14-17.
5. Xingang Li ,et.al, Assessment of patients' warfarin knowledge and anticoagulation control at a joint physician- and pharmacist-managed clinic in China, Patient Prefer Adherence. 2018; 12: 783–791.
6. Yahaya A H M , Hassali M A , Awaisu A, Shafie A, A Factors Associated with Warfarin Therapy Knowledge and Anticoagulation Control among Patients Attending a Warfarin Clinic in Malaysia, journal of clinical and diagnostic research , Year : 2009, Volume : 3,Issue : 4 Page : 1663 - 1670