EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON BUERGER ALLEN EXERCISE IN TERMS OF KNOWLEDGE TO PREVENT VARICOSE VEINS AMONG TRAFFIC POLICE, ERODE

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ABSTRACT:

This study was under taken to assess the efficacy of structured teaching program on Buerger Allen Exercise in terms of knowledge to prevent varicose veins among traffic police, Erode, Tamil Nadu". Pre experimental one group pretest –posttest design was used. The study was conducted in police station premises, among 50 traffic constables. The data analysis was done by using descriptive statistics and inferential statistics. In pre-test, the mean knowledge score is 11.00 and standard deviation is (+4.52) whereas in post-test, the mean score is 19.84 and standard deviation (+3.56). The paired 't' calculated value is 31.21, which is greater than table value (3.34) at p<0.001 level. It proves that there is a very highly significant difference between pre -test and post- test knowledge levels at p<0.001. The study result shows that there was a significant difference in knowledge levels between pretest and posttest regarding prevention of varicose veins, which emphasizes that effectiveness of Structured Teaching Program on Buerger Allen exercise among traffic police was effective.

***Key Words** : structured teaching program, traffic police, exercise.*

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INTRODUCTION:

Veins are blood vessels that carry blood toward the heart. Most veins carry deoxygenated blood from the tissues back to the heart; exceptions are the pulmonary and umbilical veins, both of which carry oxygenated blood to the heart. Veins also act as storage for unused blood. This storing capacity is due to the elasticity (flexibility to expand) of the walls of the veins. They are less muscular than arteries and are often closer to the skin. There are valves in most veins to prevent backflow[1]. Varicose veins, also known as varicose or varicosities, where veins become enlarged, dilated, and overfilled with blood. Varicose veins typically appear swollen and raised, and have a bluish-purple or red color. It happens when valves in the veins no longer functions adequately (valvular incompetence).[2]

Chyong Fang Chang. (2015) conducted a study on effect of Buerger Allen Exercise in improving peripheral circulation Findings provide some evidence of the beneficial effects of Buerger's exercises. It was seen as a low cost and low risk physical activity that most diabetic patients could undertake at home[9].

Buerger Allen Exercises are effective among varicose vein patients. Exercise training helps the varicose vein patients in potential mechanisms like formation of collateral circulation and increased blood flow; Exercises used to empty engorged vessels, stimulate circulation, and at least partially relieve swelling (edema) in patients with arterial insufficiency of the lower limbs and feet [3-5.]

Buerger Allen Exercise is one of the interventions to stimulate the development of collateral circulation in the legs. Primary Care Providers should focus on prevention by early recognition and prevention of PAD to those at increased risk. An awareness of diagnostic and treatment strategies will enable primary care providers to educate patients. This will help to improve both concordance with treatment and disease outcome. Considering the above factors and review of literature, the investigator felt that all diabetes mellitus and Hypertension patients should do the Buerger Allen exercise to improve lower extremity perfusion. Though there is high prevalence rate (35%) of PAD in India, very few studies have been conducted in India. Researcher personally observed during clinical experience that many patients with vascular disease are admitted to the hospital with pedal edema. The investigator found that the patients were not having adequate knowledge regarding disease condition and its preventive measures. Thus the investigator felt the need to educate and implement Buerger Allen Exercise for the patients to reduce pedal edema [6-8].

MATERIALS AND METHODS:

RESEARCH APPROACH

The research approach used for the study was a quantitative approach.

RESEARCH DESIGN

The investigator selected pre-experimental one group pretest –posttest design to evaluate the effectiveness of Structured Teaching Program on Buerger Allen Exercise in terms of Knowledge to prevent varicose vein among traffic police, Erode, Tamil Nadu .

RESEARCH SETTING

The study was conducted in police station premises, Erode. The data were collected over a period of 6 months with 50 traffic constables.

DATA COLLECTION INSTRUMENTS

The instruments used for the study were,

Part 1: Baseline Proforma

Part 2: Structured questionnaire on prevention of Varicose Vein in terms of knowledge.

DATA COLLECTION METHOD

The Ethical clearance for the study was obtained from the Institutional Ethics committee. A prior formal permission was obtained from the authority. Informed consent from the subjects after explaining the purpose of the study was obtained. Samples were selected using simple random sampling with lottery method who met the inclusion criteria**.** Pre-test was conducted using structured questionnaire on prevention of Varicose Vein in terms of knowledge. Structured teaching programme on Buerger Allen exercise with demonstration was administered to the traffic police on the same day. On 8thday post-test knowledge was assessed using the same questionnaire.

CONTENT VALIDITY & RELIABILITY:

The developed questionnaire and STP was submitted to 10 experts in the particular field of study for opinion on relevance and appropriateness of the tool. Reliability of the tool was checked by using pilot study prior to data collection. Split half technique was used to calculate the reliability of the tool.

DATA ANALYSIS:

The data analysis was done by using descriptive statistics and inferential statistics. The descriptive statistics used for data analysis were the percentage, mean and standard deviation and inferential statistics was independent "t" test.

RESULTS

Table-1: Frequency and Percentage Distribution of Demographic Variables among Traffic police

S.N0	Demographic variables	F	%
1.	**Age(in years)**		
	a. 30-35	15	30%
	b. 36-45	20	40%
	c. 46-50	15	30%
2.	**Educational Qualification**		
	a. Secondary education	15	30%
	b. Higher Secondary	20	40%
	c. Graduate	15	30%
3.	**Monthly Income (in Rs)**		
	a. < 5000	10	20%
	b. 5001-10000	30	60%
	c. >10000	10	20%
4.	**Type of family**		
	a. Joined family	15	30%
	b. Nuclear family	35	70%
5.	**Type of diet**		
	a. Vegetarian	15	30%
	b. Non –Vegetarian	35	70%
6.	**Bad Habits**		
	a. Alcoholism	10	20%
	b. Tobacco use	5	10%
	c. Smoking	10	20%
	d. No bad habits	25	50%
7.	**From whom you have received the general information about health**		
	a. Health care personnel	10	20%
	b. Newspaper/TV	30	60%
	c. Relatives/friends	5	10%
	d. None	5	10%
8.	**Is any of your family members affected with Varicose vein?**		
	a. Yes	20	40%
	b. No	30	60%

Table 3: Efficacy of structured teaching programme on Buerger Allen exercise in terms of knowledge to prevent varicose veins among Traffic Police N=50

Knowledge	Mean	Standard deviation	Calculated 't' value	Table value	Significance
Pre - test	1.94	0.94	**25.01**	**3.34**	**S***
Post - test	0.52	0.71			

Table-2: Pretest and Post test Knowledge scores regarding Buerger Allen Exercise to prevent varicose veins among Traffic police

KNOWLEDGE LEVELS		PRE -TEST		POST- TEST	
		Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Inadequate knowledge	0-33.3%	35	70%	5	10%
Moderately adequate knowledge	33.4-66.6%	10	20%	30	60%
Adequate knowledge	66.6-100%	5	10%	15	30%
Total		**50**	**10**	**50**	**10**

DISCUSSION:

The discussion of the present study is based on findings obtained from descriptive and inferential statistical analysis of collected data. The study was to assess the knowledge on prevention of varicose vein among traffic police. In pre-test, majority of them 35(70%) had Inadequate knowledge, 10 (20%) had moderately adequate knowledge and 5(10%) had adequate knowledge. Whereas in post- test knowledge levels of 50 workers regarding Buerger Allen exercise to prevent varicose veins, majority of them 15 (30%) had adequate knowledge, 30 (60%) had moderately adequate knowledge and 15(30%) had inadequate knowledge.

CONCLUSION:

The study shows that the buerger Allen exercise was an effective intervention in to prevent varicose veins by buerger Allen exercise among traffic police.

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