TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING VARICOSE VEINS AND ITS PREVENTION AMONG OT AND ICU STAFF NURSES

Mr. Abhimanyu Sharma* | Dr. Rajendra Prasad Sharma**

*PhD Scholar, & Associate Professor, Sharda College of Nursing, Sodawas (Alwar) Rajasthan, India

**Associate Professor, Mahatma Gandhi Nursing College Jaipur, Rajasthan, India

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ABSTRACT

Many factors predispose human beings to a disease of the lower extremities, and this condition affects approximately eighty million Americans. Its manifestations may appear to be little more than a cosmetic nuisance, yet it may be an indication of a more serious underlying problem undetected by visual inspection. Venous disease is also capable of producing a plethora of uncomfortable symptoms, and left untreated, may progress to cutaneous pigmentation, dermatitis, ulceration, haemorrhage, or superficial thrombophlebitis. Although uncomplicated cases of the disease are more common, venous disease should not be taken lightly. Steps to retard disease expression and progression should be implemented whenever possible. As blood rushes through our legs the veins send it back to the heart. In case of prolonged standing, due to force of gravity the veins lose their ability to push the blood upwards, causing the blood to settle down in certain areas of the veins. Varicose veins are tortuous, distended and bulging veins (varicosities) beneath the skin of the legs. They are most often swollen and gnarled veins that most frequently occur in the legs, ankles and feet.

Even though the exact cause of varicose veins is unknown, there are some risk factors which contribute to development of this problem. Some of the risk factors are, low physical activity, smoking, family heredity of varicose veins, congenital valve or vein wall defects, valve damage from trauma, obstruction, deep vein thrombosis (DVT) or inflammation, chronic venous distention associated with occupations requiring prolonged standing, obesity or pregnancy, systemic conditions that interfere with venous return and loss of vein wall elasticity with ageing.

Key Words: Varicosities, Psychological Hazard, Preventable, Vascular Disease.

About Authors

Author Mr. Abhimanyu Sharma is a PhD scholar and an Associate Professor at Sharda College of Nursing, Sodawas (Alwar), Rajasthan, India.

Author Dr. Rajendra Prasad Sharma is currently working as Associate Professor at Mahatma Gandhi Nursing College Jaipur, Rajasthan, India. He is also a Research Guide for PG and Ph.D. Scholars. He has presented papers at various seminars and conferences

INTRODUCTION

Nurses are an integral component of health care delivery system. In discharging their duties, nurses encounter a variety of occupational health problems, which may be categorised into biological hazards, physical hazards and psychological hazards. Nurses constitute the largest category of health care workers in most countries, and have a critical role in the health care delivery system. Nurses generally serve as the primary interface with patients. It would be fair to state that the health care delivery system would cease to function in absence of nurses.

Varicose vein is one of the chief preventable diseases which are associated with veins. It is a serious disease, which poses threat of life of a patient when effective and efficient measures are not taken.

Varicose veins are common in the superficial veins of the legs which are subject to high pressure when standing. Accumulation of more and more venous blood in the superficial venous system makes the superficial veins dilated and tortuous. This condition of dilated and tortuous veins in the leg due to damaged valve between the deep and superficial venous system is called varicose vein.

Varicose vein is most common in women and in people whose occupations require prolonged standing, teachers, traffic police, bus conductors, machine workers, construction workers and pregnant women. The deep and superficial veins get damaged because of prolonged standing. Once the vein is damaged there is a reversal of blood flow from deep to superficial vein.

As the heart beats, it pumps blood through a system of blood vessels called the circulatory system. The vessels are elastic tubes that carry blood to every part of the body. Arteries carry blood away from the heart while veins return it. Vascular disease includes any condition that affects the circulatory system.

Varicose vein is the most common type of vascular disease. Varicose veins are dilated, tortuous, elongated and superficial veins that are usually seen in the legs. Superficial veins (saphenous vein) of the legs are most commonly affected.

Chronic venous disease is the most common vascular condition to affect the lower limbs. Varicose veins being one among the chronic venous diseases are common among people whose occupation requires long standing.

NEED FOR THE STUDY

Abnormally dilated, elongated and torturous alteration in the veins and their tributaries is called as varicose veins. Varicose veins are twisted, enlarged veins, often dark blue in colour, closer to the surface of the skin mainly seen in the lower limbs. Professions involving standing or sitting for prolonged periods of time have an increased risk of developing varicose veins i.e., store clerks, waitresses, hair dressers, flight attendants, teachers and nurses.

One of the major goals in the field of health promotion and disease prevention is to identify risk factors for disease so that information about these risk factors can then be shared with people and the hope is that people will use this information to change their behaviour to lower their disease risk. There are three major problems with this model. The first problem is that it is very difficult to identify disease risk factors. The second problem is that even when we do identify disease risk factors, we have a very difficult time in getting people to change their behaviour. Many research studies have shown that even when people know about risk factors for the disease, this often does not result in their change in behaviour to lower the risk. Most behaviour changes occur, in fact, in response to a variety of environmental and community forces that constrain and modify behaviour.

OBJECTIVES

1. Assess the Pre-test knowledge score regarding varicose veins and its prevention among OT and ICU nurses.
2. Assess the Post-test knowledge score regarding varicose veins and its prevention among OT and ICU nurses.
3. To evaluate the effectiveness of structured teaching programme on knowledge regarding varicose veins and its prevention among OT and ICU nurses.
4. Find out the association between Post-test knowledge scores and selected demographic variables.

ASSUMPTIONS

The study assumes that –

1. OT and ICU nurses have knowledge regarding varicose veins and their prevention.
2. Structured Teaching Programme will enhance the level of knowledge on varicose veins and their prevention among OT and ICU nurses.
3. Improvement in knowledge will enable the OT and ICU nurses to take measures in preventing the occurrence of varicose veins.

HYPOTHESIS

H₁ - The mean Post-test knowledge score will be significantly higher than the mean Pre-test knowledge score regarding varicose veins and their prevention.

H₂ - There will be significant association of Post-test knowledge score regarding varicose veins and their prevention with selected demographic variables.

RESEARCH METHODOLOGY

Research Methodology is a way of systematically solving the research problem. It is a science of studying how research is done scientifically.

Fig. 1: Schematic representation of Research Methodology

DATA ANALYSIS AND INTERPRETATION

Table – 1: Distribution of OT and ICU nurses according to Demographic information**N = 60**

Demographic Variable		Frequency	Percentage (%)
Age (In years)	20 – 30	20	33.33
	30 – 40	15	25.00
	40 – 50	15	25.00
	>50	10	16.66
Gender	Female	45	75.00
	Male	15	25.00
Professional qualification	G.N.M.	25	41.66
	Basic B. Sc. Nursing	10	16.66
	Post Basic B.Sc. Nursing	20	33.33
	M. Sc. Nursing	05	08.33
Working experience	0 – 5 Years	20	33.33
	5 – 10 Years	20	33.33
	10 – 15 Years	15	25.00
	More than 15 Years	05	08.33
Previous knowledge	Yes	20	33.33
	No	40	66.66

Table .2: It shows Mean, Mean percentage and Standard deviation of area-wise Pre-test knowledge scores of OT and ICU nurses**N = 60**

Sl. No.	Area	Maximum Score	Mean	Mean (%)	S.D.
1.	Questions related to varicose veins – causes and symptoms	11	5.267	52.67	1.200
2.	Question related to management	10	5.016	50.16	1.072
3.	Questions related to prevention and control	09	5.220	52.20	1.066
4.	Overall maximum score	30	15.500	51.66	1.565

Table .2 depicted area wise mean, mean percentage, standard deviation and overall score in Pre- test knowledge scores of OT and ICU nurses comprising three sections on varicose veins.

Table .3 It shows Mean, Mean percentage and Standard deviation of area-wise Post-test knowledge scores of OT and ICU nurses

N = 60

Sl. No.	Area	Maximum Score	Mean	Mean (%)	S.D.
1.	Questions related to varicose veins — causes and symptoms	11	8.7	87.00	0.971
2.	Question related to management	10	9.233	92.33	0.782
3.	Questions related to prevention and control	09	8.5667	85.66	0.644
4.	Overall maximum score	30	26.5	88.33	0.866

Table no. 2.2 depicted area wise mean, mean percentage, standard deviation and overall score in Post-test knowledge scores of OT and ICU nurses comprising three sections on varicose veins.

Table .4: Percentage distributions of overall knowledge level and knowledge in specific areas related to varicose veins and its prevention in Pre-test & Post-test

N = 60

Sl. No.	Level of Knowledge	% of score	Pre-test		Post-test	
			Frequency	Percentages (%)	Frequency	Percentages %
1.	Poor	< 50%	31	51.66	00	00
2.	Average	50% - 75%	29	48.34	00	00
3.	Good	>75%	00	00	60	100

The level of knowledge was classified in three aspects which include poor (<50%), average (50-75%), good (>75%). The data of table No. 2.3 show that in Pre-test, majority of the subjects 51.66% (31) had poor knowledge and 48.34% (29) subjects had average knowledge about the topic, and 0% (none) had good knowledge. The above presented data reveal that in the assessment of Post-test knowledge, majority 100% (60) of subjects had good knowledge.

Fig. 2: Percentage distributions of overall knowledge level related to varicose veins and its prevention in Pre-test & Post-test

In Pre-test, majority of the subjects, 51.66% (31) had poor knowledge and 46.67% (28) subjects had average knowledge about the topic, and 1.67% (01) had good knowledge. The above presented data reveal that in the assessment of Post-test knowledge, majority 100% (60) of subjects had good knowledge.

Table .5: Mean, Median and Standard deviation of Pre-test and Post-test knowledge scores of staff nurses on the structured knowledge questionnaire

Knowledge test	Mean	Median	SD	Df	'z' test
Pre-test	15.5	15	1.565	59	65.469
Post-test	26.5	27	0.866		

Maximum score: 30, Minimum score: 0

Fig. 3: Diagram showing the Mean, Median and Standard deviation of Pre-test and Post-test knowledge scores of OT and ICU nurses.

The bar diagram in Figure 3 shows the Mean Pre-test and Mean Post-test knowledge scores of staff nurses. It is evident from the bar graph that the mean knowledge score of Post-test (26.5) was higher than the mean knowledge score of Pre-test (15.5). The Median of the Post-test (27) is higher than the Median of the Pre-test knowledge score (15). The findings also revealed that the Post-test knowledge scores are more homogenous (SD 0.866) than the Pre-test knowledge scores (SD 1.565).

Table .6: Association of knowledge scores of subjects with their demographic variables

Demographic Variable	df	Tabulated Value	Calculated Value	Finding
Age	6	12.59	14.000	Significant
Gender	2	5.99	1.128	Not Significant
Professional Qualification	6	12.59	13.161	Significant
Working Experience	6	12.59	13.857	Significant
Previous knowledge	2	5.99	9.937	Significant

CONCLUSION

The following conclusions were drawn on the basis of findings of the study: —

- The mean score of staff nurses before administration of STP was 15.5.
- The median score of staff nurses before administration of STP was 15.
- The standard deviation score of staff nurses before administration of STP was 1.565
- The mean score of staff nurses after administration of STP was 26.5.
- The median score of staff nurses after administration of STP was 27.
- The standard deviation score of staff nurses after administration of STP was 0.866
- The Z test value at 59 df was 65.469.
- It was concluded that the tabulated value is less than the calculated value.
- It was concluded that the structured teaching programme regarding varicose veins and their prevention was effective to enhance the knowledge of staff nurses.

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