INTERNATIONAL JOURNAL OF NURSING EDUCATION & RESEARCH

Journal homepage: www.mcmed.us/journal/ijner

"EFFECTIVENESS OF AN INFORMATION BOOKLET ON KNOWLEDGE AND ATTITUDE OF KSRTC DRIVERS REGARDING RISK FACTORS AND PREVENTION OF DEEP VEIN THROMBOSIS IN SELECTED DEPOTS, RAMANAGARA"

Tejeshwari.B.V[1], Adarsh B K[2]

[1]Ph.D Scholar, Guide, HOD & Professor, Department of Community Health Nursing, RajaRajeswari College of Nursing, Bangalore, Karnataka, India.
[2]M.Sc Student, RajaRajeswari College of Nursing, Bangalore, Karnataka, India.

Article Info

Received 22/10/2022
Revised 15/11/2022
Accepted 29/11/2022

Key word:-
Effectiveness, Knowledge, Attitude, Information Booklet, DVT, KSRTC drivers, Risk factors and Prevention.

ABSTRACT

Introduction: - DVT is a clinically entity with potential risk, as it can lead to pulmonary embolism. Therefore it needs to be diagnosed as soon as possible, followed by quick intervention. Deep vein thrombosis refers to the formation of a thrombus, which is a blood clot that forms deep in the veins, most often in the leg such as the calf veins, femoral veins, popliteal vein or deep veins of pelvis and even arms. It can partially or completely block blood flow to the heart and damage the one-way valves in the veins. It can also break free and travel to major organs such as lungs which can be very dangerous. The affected limbs in many persons become painful, warm, swollen, and red with engorged superficial veins. It is a potentially dangerous condition with a myriad of risk factors that can lead to preventable morbidity and mortality. Prophylaxis is very important and can be mechanical and pharmacological. The mainstay of treatment is anticoagulant therapy. Low molecular weight heparin, unfractional heparin and Vitamin K antagonists have been the treatment of choice1. The exact incidence of DVT has been difficult to know, due to problems in clinical diagnosis of DVT. Some studies state the incidence of venous thromboembolism is higher in Asian population compared to western population. In adults, the clinical conditions that predisposes to DVT are increasing age, cancer and its treatment, prolonged immobility, stroke or paralysis, congestive heart failure, acute infection, pregnancy, dehydration, long travel, and rheumatoid disease2. DVT is a major and a common preventable cause of death worldwide. It affects approximately 0.1% of persons per year. The overall average age and sex adjusted annual incidence of venous thromboembolism is 117 per 100,000 (DVT, 48 per 100,000, PE, 69 per 100,000) with higher age-adjusted rates among males than females. Men are having higher risk of recurrent thrombosis3. Objectives: - 1. To assess the pre-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis.2. To assess the post-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis.3. To evaluate the effectiveness of information booklet on knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers. 4. To correlate the knowledge and attitude of KSRTC drivers regarding risk factors and prevention of deep vein thrombosis. 5. To associate the post-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis with their

selected demographic variables. Design: - Evaluative research approach was used for the study. 60 KSRTS drivers were recruited by non probability purposive sampling method. Necessary administrative permission was obtained from concerned authority.Oral consent was obtained from all subjects. After the investigator collected the data pertaining to the demographic variables. After which the data will be collected using structured interview schedule. Ethical clearance was obtained from Institutional ethical committee. Content validity of the tool was established by split of method. The obtained score was 0.96 & it was found to reliable. Pre-testing of the tools was done. Setting: - The study was conducted in selected depots, Ramanagara. Result: - The findings of the study was revealed that the mean score of knowledge regarding risk factors and prevention of deep vein thrombosis was 11.6 in pre-test and 18.3 in post-test out of maximum score of 25. The mean score percentage was 46.4 in pre-test and 73.1 in post-test, which proved that information booklet was effective in increasing the knowledge level of KSRTC drivers regarding risk factors and prevention of DVT. The paired't' test found be statistically significance at 0.05 levels. The Pearson's correlation coefficient value r=0.67 which indicates that there is a positive correlation between knowledge and attitude of KSRTC drivers regarding risk factors and prevention of DVT. Conclusion: - The present study attempted to assess the effectiveness of information booklet on knowledge and attitude of KSRTC drivers regarding risk factors and prevention of DVT and it was found that the information booklet was effective in improving the knowledge and attitude of KSRTC drivers.

Corresponding Author

Tejeshwari.B.V

E-mail: tejeshwinirajesh@gmail.com

INTRODUCTION

The vascular system is vast network of vessels through which blood circulates in the body. Approximately 75% of total blood volume within the veins. Vascular system consists of superficial and deep veins. Deep veins play a significant role in propelling blood toward the heart. The deep veins carry 90% or more of the blood from the leg toward the heart. The veins in the legs are particularly at risk of blood clotting or swelling in the veins [4].

Deep vein thrombosis, occurs when a blood clot forms within a vein that's deep in the body. It typically forms in the thigh or lower leg and often strikes people who spend hours sitting in one place. This is why it happens to airline passengers on long trips. However, commercial or owner operator truck drivers or bus drivers who spend hours on the road sitting in front of a steering wheel are also at risk of getting this condition [5].

Sitting in the driver's seat for hours slows down the blood flow because there's no need for the heart to pump vigorously. Thanks to gravity, the blood tends to pool in the legs and ankles. This sluggish pooled blood is in prime condition for blood circulation. Drivers unaware of this condition shrug off the initial symptoms. These include swelling, soreness, unusual warmth or red skin on the leg [6].

Venous thromboembolism (VTE), comprising of deep vein thrombosis (DVT) and pulmonary embolism (PE), is the third most common life-threatening cardiovascular disease. The annual incidence of VTE is estimated to be 1-2 per 1000. DVT is the formation of a blood clot occurring in the deep veins, predominantly in the legs, but it can also occur in other parts of the body. Pulmonary Embolism (PE) is a potentially life-threatening complication of DVT. A PE occurs when a clot breaks free (embolization) and travels to the arteries of the lungs. About 2/3rd of the VTE-events manifests as a DVT, and one-third as a PE with or without DVT [7].

At any time, the clot can break loose and travel in the blood stream up to the lungs. At this point, the commercial or drivers will find breathing difficulty, may have chest pain, fainting spells, a cough, or a fast heart beat. Some or all of these symptoms may occur. If the drivers continue to ignore the symptoms, he or she can literally drop dead. DVT can also start in arm as well [8].

Contraction of muscles is an important factor in helping to keep blood flowing through the veins, particularly in the legs. Prolonged immobility, especially when seated, can lead to pooling of blood in the legs, which in turn may cause swelling, stiffness and discomfort. It is known that immobility is one of the factors that may lead to the development of a blood clot in a deep vein – so-called "deep vein thrombosis". Deep vein thrombosis is a condition in which a blood clot forms in a deep vein [9].

Deep Vein Thrombosis is a common medical problem requiring early diagnosis and treatment in order to prevent serious squeal. Research has shown that DVT can occur as a result of prolonged immobility, for instance during long distance travel, whether by car, bus, train or air and lower limb surgeries. DVT most often occurs in hospitalized patients following surgery; individuals confined to bed for prolonged periods, healthy individuals whose legs remain immobilized for long stretches of time [10].

There are many factors that can increase risk of developing DVT including ischemic stroke, self or family history of DVT/VTE, immobility, obesity, pregnancy or postpartum period, varicose veins, smoking, oral contraceptives or hormone replacement therapy, decompensate cardiac failure, active cancer, cancer treatment, lung diseases, acute or chronic inflammatory disease, age> 60 years, hip or knee arthroplasty, major trauma and major surgery. All of these factors may contribute increase the risk of DVT/VTE. All obese, drivers, long travelers, and pregnant mothers should be assessed for clinical risk factors of deep vein thrombosis [11].

The preventive measures of deep vein thrombosis for the drivers are:-

- Get out and walk around: Stop every few hours or so, get out of the bus, and walk around for a bit. Stretch the legs, especially the calves and get some kind of regular exercises.
- If they can't get out of the bus and walk around: Can do simple exercise while seated to get the blood flowing. Bend or straighten the feet, legs and toes or press the balls of the feet hard against the floor every so often.
- Stay healthy and maintain an ideal body weight: Along with exercise, drink plenty of fluids and practice healthy eating habits. Overweight and obese individuals have a higher risk of developing DVT.
- Should know the risk factors and the family history: To find out if there is a history of blood clots/ DVT in the family, as that has been shown to increase the risk of developing it.
- ❖ Quit smoking: Smoking has been shown to increase the risk of blood clots. Quitting smoking obviously has plenty of other health benefits as well.
- Drink fluids, Wear loose clothing: Drink plenty of fluids (preferably water) and wear loose comfortable clothing. Avoid short, tight, socks.
- Use compression stockings: It helps to prevent DVT. Deep vein thrombosis is a common preventable cause of death; especially who are considered as high risk such as orthopedic patients, Stroke, Cardiac patients, Bus Drivers, Truck Drivers and Long travelers are identified and preventive measures are instituted without delay. Awareness of this disease, understanding its signs and symptoms and prophylaxis therapy are more effective and less expensive than the secondary prevention. Encouragement and education for the self-reporting and self-assessment help to the early detection and prevention of Deep vein thrombosis [12].

There is a need to increase the knowledge and awareness on DVT risks and prevention to avoid complications. Determination of knowledge and attitudes of drivers on DVT risks and prevention may be useful in improving their awareness and preventing this important public health problem.

OBJECTIVES

1. To assess the pre-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis.
2. To assess the post-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis.
3. To evaluate the effectiveness of information booklet on knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers.
4. To correlate the knowledge and attitude of KSRTC drivers regarding risk factors and prevention of deep vein thrombosis.
5. To associate the post-test knowledge and attitude of KSRTC Drivers regarding risk factors and prevention of deep vein thrombosis with their selected demographic variables.

MATERIAL AND METHODS

Evaluative research approach was used for the study. 60 KSRTS drivers were recruited by non probability purposive sampling method. Necessary administrative permission was obtained from concerned authority. Oral consent was obtained from all subjects. After the investigator collected the data

pertaining to the demographic variables. After which the data will be collected using structured interview schedule in the following two phases.

Phase I: Assess the pre-test knowledge and attitude of KSRTC Drivers regarding the risk factors and prevention of deep vein thrombosis using structured questionnaire.

Phase II: An information booklet will be issued on knowledge regarding deep vein thrombosis.

Phase II: Assess the post-test knowledge after a period of one week within the group by using structured interview schedule based on the same questionnaire.

Ethical clearance was obtained from Institutional ethical committee. Content validity of the tool was established by split of method. The obtained score was 0.96 & it was found to reliable. Pre-testing of the tools was done. A pilot study was conducted to see the feasibility.

The obtained data were analyzed based on the objectives and hypothesis by using descriptive and inferential statistics.

RESULTS

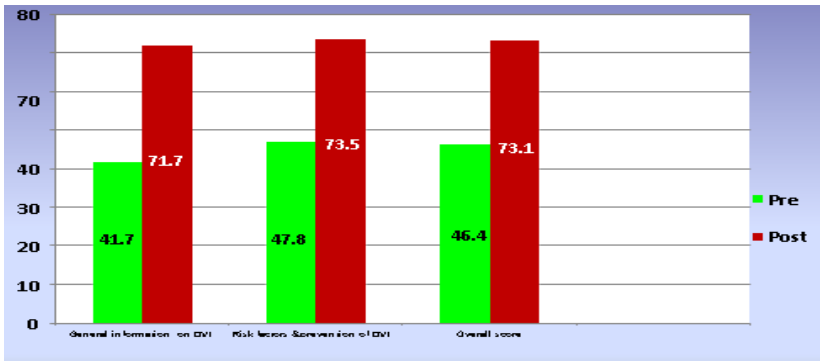
Table-1: Frequency and percentage distribution of KSRTC Drivers according to the level of knowledge regarding risk factors and prevention of deep vein thrombosis before and after information booklet**. n=60**

Sl. No	Level of Knowledge	Respondents Knowledge			
		Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
1.	Inadequate (< 50%)	10	17	-	-
2.	Moderate (50-75%)	50	83	20	33
3.	Adequate (> 75%)	-	-	40	67
OVERALL		**60**	**100**	**60**	**100**

The above table 1 shows the distribution of KSRTC Drivers according to the level of knowledge regarding risk factors and prevention of deep vein thrombosis before and after information booklet. It revealed that in pre-test, majority of the respondents 50 (83%) had moderate knowledge, 10 (17%) had inadequate knowledge and none of them had adequate knowledge regarding risk factors and prevention of deep vein thrombosis. And in post-test most of the respondents 40 (67%) had adequate knowledge and 20 (33%) had moderate knowledge regarding risk factors and prevention of deep vein thrombosis.

Graph 1: Range, Mean, Standard Deviation and Mean score percentage of knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers before and after information booklet.

n=60



The above graph 1 shows the range, mean, standard deviation and means score percentage of knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers before and after information booklet. With regard to the general information on DVT, out of maximum score of 5, the range was 2-3 in pre-test and 2-5 in post-test, the mean score was found to be 2.1 in pre-test and 3.6 in post-test, with standard deviation of 0.28 and 1.08 and mean score percentage was 41.7 in pre-test and 71.7 in post-test.

In context with risk factors and prevention of DVT, out of maximum score of 20, the range was 2 - 13 in pre-test and 10-19 in post-test, the mean score was found to be 9.6 in pre- test and 14.7 in post-test, with standard deviation of 2.70 and 2.01 and mean score percentage was 47.8 in pre-test and 73.5 in post-test.

The overall knowledge regarding risk factors and prevention of deep vein thrombosis, out of maximum score of 25, the range was 4 - 15 in pre-test and 15-21 in post-test and mean score was found to be 11.6 in pre-test and 18.3 in post-test, with standard deviation of 2.64 and 1.77 and mean score percentage was 46.4 in pre-test and 73.1 in post-test.

Table 2: Range, Mean, Standard Deviation and Mean score percentage of gain in knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers and statistical significance.

n=60

Sl. No	Aspects of Knowledge	Max. Score	Enhancement				Paired 't' value	P-value
			Range	Mean	SD	Mean %		
1.	General information on DVT	5	0 – 3	1.6	1.09	31.3	11.08*	P< 0.001
2.	Risk factors & Prevention of DVT	20	3 - 8	5.2	1.42	26	28.18*	P< 0.001
OVERALL KNOWLEDGE		**25**	**0 – 15**	**6.7**	**2.83**	**26.6**	**9.47***	**P< 0.001**

The above table 2 shows the range, mean, standard deviation and means score percentage of gain in knowledge regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers and statistical significance.

With regard to the general information on DVT, out of maximum score of 5, the range was 0-3 mean score was found to be 1.6, with standard deviation of 1.09, mean score percentage of 31.3 and the paired't' value was 11.08 at the level of P< 0.001.

In context with risk factors and prevention of DVT, out of maximum score of 20, the range was 3 - 8, mean score was found to be 5.2, with standard deviation of 1.42, mean score percentage of 26 and the paired 't' value was 28.18* at the level of P< 0.001.

On an overall, gain in knowledge regarding risk factors and prevention of deep vein thrombosis, out of maximum score of 25, the range was 0-15, mean score was found to be 6.7, with standard deviation of 2.83, mean score percentage of 26.6 and the paired 't' value was 19.47 at the level of P< 0.001.

Table-3: Mean, Standard Deviation and Mean score percentage of attitude regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers before and after information booklet.

n=60

Sl.No	Attitude Domains	Max. Score	Respondents Knowledge		
			Mean	SD	Mean %
1.	Pre-test	60	15.68	2.02	26.13
2.	Post-test	60	47.75	5.4	79.59

The above table 3 shows the range, mean, standard deviation and means score percentage of attitude regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers before and after information booklet.

The above table represents the mean, SD and means percentage of attitude regarding risk factors and prevention of deep vein thrombosis. It shows the levels of attitude, mean and mean percentage was 15.68 and 26.13% respectively with standard deviation of 2.02 in pre-test. In post-test, the level of attitude of KSRTC Drivers, mean and mean percentage is 47.75 and 79.59 respectively with the standard deviation of 5.4

Table-4: Mean, Standard Deviation, r value and inference of attitude regarding risk factors and prevention of deep vein thrombosis among KSRTC Drivers. **n = 60**

Sl.No	Aspects	Mean	SD	'r' Value	Inference
1	Level of Knowledge	15.68	2.02	0.67	Positive Correlation
2	Level of Attitude	47.75	5.4		

The above table 4, illustrates that Pearson's correlation coefficient value r =0.67 which indicates that there is a positive correlation between the knowledge and attitude on risk factors and prevention of deep vein thrombosis among KSRTC Drivers.

Table 5: Association of knowledge level of KSRTC Drivers with selected socio- demographic variables.

n=60

Sl. No	Demographic variables	No	Knowledge Level				$\chi 2$
			< 16		> 16		
			No:	%	No:	%	
1	Age in years						
	18 – 28	16	7	43.7	9	56.2	χ^2 =1.5 NS df = 3
	29 – 39	18	9	50	9	50	
	40 – 50	15	6	40	9	60	
	Above 50	11	3	27.2	8	72.7	
2	Educational Status						
	SSLC	20	9	45	11	55	χ^2 =1.3 NS df = 3
	PUC	16	6	37.5	10	62.5	
	Degree	14	8	57.1	6	42.8	
	Graduate	10	4	40	6	60	
3	Marital Status						
	Married	29	11	37.9	18	62	χ^2 = 7.7 NS df = 3
	Unmarried	21	3	14.2	18	85.7	
	Widower	6	1	16.6	5	83.3	
	Divorced	4	3	75	1	25	
4	Monthly Salary						
	Below & Equal to 10,000	20	9	45	11	55	χ^2 = 17.6

	Rs.10,001 – Rs.15,000	15	6	40	9	60	S* df = 3
	Rs.15,001 – Rs.20,000	12	4	33.3	8	66.7	
	Above Rs.20,001	13	3	23.1	10	76.9	
5	Dietary Pattern						
	Vegetarian	8	0	0	8	100	χ^2 = 23.4 S* df = 1
	Mixed	52	25	48.1	27	51.9	
6	Body Built						
	Thin	17	10	58.8	7	41.2	χ^2 =1.2 NS df = 2
	Obese	7	3	42.9	4	57.1	
	Normal	36	12	33.3	24	66.7	
7	Working hours per day						
	8 – 9 hours	31	11	35.4	20	64.5	χ^2 =1.0 NS df = 1
	Above 10 hours	29	14	48.2	15	51.7	
8	Personal Habits						
	Alcoholism	10	3	30	7	70	χ^2 = 3.5 NS df = 4
	Smoking	11	6	54.5	5	45.4	
	Tobacco chewing	11	4	36.3	7	63.6	
	Alcohol & Smoking	11	3	27.2	8	72.7	
	None of the habits	17	6	35.2	11	64.7	
9	Source of information						
	No information	12	4	33.3	8	66.6	χ^2 =11.8 S* df = 4
	Friends	9	3	33.3	6	66.6	
	Family members	9	4	44.4	5	55.5	
	Mass Media	19	11	57.8	9	47.3	
	Health Personnel	11	5	45.4	6	54.5	

The above mentioned table 5 describes about the association between the levels of knowledge with selected demographic variables of KSRTC Drivers on risk factors and prevention of deep vein thrombosis. The obtained chi square value shown that there was significant association between the levels of knowledge with monthly salary χ 2 = 17.6, df = 3, dietary pattern χ 2 = 23.4, df = 1 and source of information χ2 = 11.8, df = 4 at P<0.05. But the other demographic variables did not shown any

significant association between the levels of knowledge of KSRTC Drivers.

Table 6: Association of Attitude level of KSRTC Drivers with selected socio- demographic variables

n=60

Sl. No	Demographic variables	No	Attitude Level				$\chi 2$
			< 16		> 16		
			No:	%	No:	%	
1	Age in years						
	18 – 28	16	7	43.7	9	56.2	χ^2 =5.5 NS df = 3
	29 – 39	18	9	50	9	50	
	40 – 50	15	7	46.6	8	53.3	
	Above 50	11	1	9.09	10	90.9	
2	Educational Status						
	SSLC	20	9	45	11	55	χ^2 = 17.1 S* df = 3
	PUC	16	7	43	9	56.2	
	Degree	14	6	42.8	8	57.1	
	Graduate	10	4	40	6	60	
3	Marital Status						
	Married	29	10	34.4	19	65.5	χ^2= 13.5 NS df = 3
	Unmarried	21	17	80.9	4	19.04	
	Widower	6	2	33.3	4	66.6	
	Divorced	4	0	0	4	100	
4	Monthly Salary						
	Below & Equal to 10,000	20	7	35	13	65	χ^2 = 1.7 NS df = 3
	Rs.10,001 – Rs.15,000	15	7	46.6	8	53.3	
	Rs.15,001 – Rs.20,000	12	7	58.6	5	41.6	
	Above Rs.20,001	13	6	46.1	7	53.8	
5	Dietary Pattern						
	Vegetarian	8	0	0	8	100	χ^2 = 4 NS df = 1
	Mixed	52	27	51.9	25	48.1	
6	Body Built						
	Thin	17	10	58.8	7	41.2	χ^2 =1.2 NS df = 2
	Obese	7	3	42.9	4	57.1	
	Normal	36	14	38.8	22	61.2	

7	Working hours per day						
	8 – 9 hours	31	20	64.5	11	35.4	χ^2 =6.7 NS df = 1
	Above 10 hours	29	9	31.03	20	68.9	
8	Personal Habits						
	Alcoholism	10	5	50	5	50	χ^2 = 3.4 NS df = 4
	Smoking	11	6	54.5	5	45.4	
	Tobacco chewing	11	4	36.3	7	63.6	
	Alcohol & Smoking	11	3	27.2	8	72.7	
	None of the habits	17	10	58.8	7	41.17	
9	Source of information						
	No information	12	7	58.3	5	41.6	χ^2 = 4.5 NS df = 4
	Friends	9	3	33.3	6	66.6	
	Family members	9	4	44.4	5	55.5	
	Mass Media	19	9	47.3	10	52.6	
	Health Personnel	11	8	72.7	3	27.2	

The above mentioned table 6 describes about the association between the levels of attitude with selected demographic variables of KSRTC Drivers on risk factors and prevention of deep vein thrombosis. The obtained chi square value shown that there was a significant association between the levels of attitude with educational status $\chi^2 = 17.1$, df= 3 at P<0.05. But the other demographic variables did not shown any significant association between the levels of attitude of KSRTC Drivers.

Nursing Implications

The findings of the present study had implication in the field of nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice

Nurses are key personnel of a health team, who plays a major role in the health promotion and maintenance. Nursing is a practicing profession so; the investigator generally integrates findings in to practice. Health care delivery system at present gives more emphasis on prevention rather than curative aspects.

- The findings recommend the educationalists at various educational levels to plan, develop and utilize various methods of health education which will enhance quick reference and knowledge in practice.
- Nurses can conduct teaching sessions for drivers during their visits to the bus Depots which will help in improving the knowledge and attitude of nurses as well as the drivers regarding risk factors and prevention of Deep vein thrombosis.
- The findings would help the nurse practitioner to develop insight into the Importance of health education in their practice in maintaining the health of society.

Nursing Education

It emphasis that adequate knowledge owned by the nurses might help to update themselves on the recent advancements, which in turn helps the nurses to give health education for the drivers on Deep vein thrombosis to follow precautions in early identification

and prevention of complications and also to improve care abilities.

- Student nurses should be provided awareness on various aspects of prevention of Deep vein thrombosis.
- The student nurses from school and college of nursing should been encouraged to attend specialized courses and seminars regarding prevention and management of Deep vein thrombosis and its complications.
- There must be adequate teaching strategies such as demonstration, simulation, exercises conducted to the students by making use of video films, computer based teaching and learning on risk factors and prevention of Deep vein thrombosis.
- Nurses at the post graduate level need to develop skills in preparing health teaching materials at the level of drivers understanding.

Nursing Administration

Staff development program in any organization is the prime responsibility of the nurse administrator. In the era of technological advancement, the demand for quality and competent care poses a challenge to nurse administrators to demonstrate their efficiency in providing care to KSRTC drivers in preventing Deep vein thrombosis and its complications at the earliest.

>The nurse administrator should formulate policies, protocols, guidelines and systems of care in collaboration with the multidisciplinary team.

>The findings showed that there is need for continued heal the education for KSRTC drivers regarding risk factors and prevention of Deep vein thrombosis.

Nursing Research

Emphasis on nursing research or clinical studies is needed to improve the quality of the nursing care. Dissemination of findings through conference and professional journals will make application of research findings to be effective.

- This study will serve as a valuable reference material for future investigators.
- Research should focus on practicing new methods of teaching to enable drivers to improve knowledge and lead quality of life.
- A more extensive and intensive study can be conducted in this area by using different settings, samples and sampling technique.

Recommendations

- A similar study can be conducted on a larger sample, there by findings can be generalized.
- A similar study can be designed to explore knowledge, attitude of private bus drivers regarding risk factor and prevention of Deep vein thrombosis.
- The same study can be conducted with an experimental research approach having a control group.
- A comparative study can be conducted to find out the effectiveness of this instructional module and planned teaching programme regarding the same topic.

ACKNOWLEDGEMENT

We extend our thanks to KSRTC driver, Ramanagara Depots for giving us permission to conduct study. The authors are also grateful to authors, editors, and publishers of all those articles, journals and books from where the literature for this article has been reviewed anddiscussed. My sincere thanks to all people who helped us directly or indirectly to complete this study.

CONFLICT ON INTEREST: None

SOURCE OF SUPPORT: Self Funded

ETHICAL CLEARANCE: Obtained from Institutional ethical committee

REFERENCES

1. Abin M Antony, K T Moly Ms. Dhanya R Dharan. (2016). Assessment of knowledge and self-reported clinical practice on prevention of deep vein thrombosis (DVT) among staff nurses. *IOSR Journal of Nursing and Health Science*. 5(1), 18- 24.
2. World Health Organization (2015). The top 10 causes of death. Fact sheet N°310
3. RavindraCooray, Caroline Lake. (2015). Prevention of deep vein thrombosis and pulmonary embolism. *Anaesthesia and Intensive Care Medicine*. 16 (9), 457–461.
4. World health organization, immobility, circulatory problems and deep vein thrombosis. International travel and

health: 2017.

5. Suadicani P, Hannerz H, Bach E, Gyntelberg F. (2012). Jobs encompassing prolonged sitting in cramped positions and risk of venous thromboembolism: cohort study. *JRSM Short Rep*. 3(2), 8.
6. West J, Perrin K. (2008). A case-control study of seated immobility at work as a risk factor for venous thromboembolism. *J R Soc Med.* 101(5), 237–43.
7. D. C. Obalum S. O. Giwa, T. O. Adekoya-Cole.(2009). Deep vein thrombosis: risk factors and prevention in surgical patients. 28(2), 77-82.
8. Huijie Wang, Frits R. Rosendaal, (2020). Mary Cushman, Astrid HylckamaVlieg, Association between cardiovascular risk factors and venous thromboembolism in the elderly. *Research and Practice in Thrombosis*. 6(2), 21-25.
9. Yang SD, Liu H, Sun YP, Yang DL, Shen Y, Feng SQ, Zhao FD, Ding WY. (2015). Prevalence and risk factors of deep vein thrombosis in patients after spine surgery: a retrospective case-cohort study. *Sci Rep*. 2(5), 118-34.
10. Kamerkar DR, John MJ, Desai SC, Dsilva LC, Joglekar SJ. (2016).Arrive: A retrospective registry of Indian patients with venous thromboembolism. *Indian J Crit Care Med*. 20(3), 150-8.
11. Samir Q, Shah R ET AL. (2015). Frequency of proven risk factors for DVT in clinical patients being treated at a tertiary care hospital in Rawalpindi. *Journal of medicine*. 65(1), 110-12.
12. Zhang W, Huai Y, Wang W, Xue K, Chen L. (2019). A Retrospective cohort study on the risk factors of deep vein thrombosis (DVT) for patients with traumatic fracture at Honghui Hospital. *BMJ Open.*9(3), 247-9.
13. Clarke MJ, Broderick C, Hopewell S, Juszczak E, Eisinga A. (2021). Compression stockings for preventing deep vein thrombosis in airline passengers. *Cochrane Database Syst Rev*. 4(4), 20-25.
14. Beitland S, Wimmer H. (2019). Venous thromboembolism in the critically ill: A prospective observational study of occurrence, risk factors and outcome. *ActaAnaesthesiol Scand*. 63(5), 630-638.